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A Course of Lectures
ON
URINE, URINARY DEPOSITS, AND CALCULI.

DELIVERED AT THE PATHOLOGICAL LABORATORY, DURING THE SESSION 1857-58.

BY

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LECTURE XI.

IV.—THIRD CLASS OF URINARY DEPOSITS.

[*Continued from p. 948.*]

Oxalate of Lime. The next substance which is to be noticed is oxalate of lime, which was first shown to be a common urinary deposit by Dr. Golding Bird. It is seldom deposited in quantity sufficient to be recognised by the unaided eye, or to be subjected to chemical examination.

Octohedral Crystals of Oxalate of Lime. This salt crystallises in well defined octohedra, having one axis much shorter than the two others. The crystals vary much in size, and two or three forms have been described by authors. In the cases I have met with, the different appearances of the crystals were due to the position in which they were viewed, as I shall be able to prove to you very readily by this glass model. The flattened octohedron is obviously the most common appearance, because the crystal lies most easily on one of its faces. If, however, it be turned with one of the long axes directed towards the observer, while the other is held upright, the short axis will necessarily be transverse, and the crystal will appear as a long and very acute octohedron (*a*, Fig. 40). If now one of the lines formed by the meeting of two opposite faces be turned towards you, there will still be the appearance of an acute octohedron; but it will be less acute than before, and no transverse line in the centre can be made out. Upon keeping the same line towards the observer, and by carefully turning the crystal, so that the eye can see two opposite faces quite parallel to each other, the curious appearance represented in the diagram will be produced. (*Illustrations*, Plate XI, Fig. 1, *a*, *b*, *c*, *d*, *e*.)

Fig. 40.—Octohedra, dumb-bell, circular and oval crystals of oxalate of lime.

Crystals in all these positions, appearing as different forms, are commonly met with in the examination of urinary deposits. In Fig. 40 are represented octohedra in various positions, dumb-bells, and circular and oval crystals of oxalate of lime, with two cells of vaginal epithelium, deposited from the urine of a patient suffering from a tense state of the skin of the wrists and arms, a condition which is sometimes termed "hide-bound."

Many observers have figured these crystals incorrectly. Dr. Golding Bird considered that they belonged to the cubic system. Dr. Prout, however, has given a figure of oxalate of lime which clearly shows that he was aware of the exact form of the crystal. Prismatic crystals of oxalate of lime occur in some plants, and they have been observed by Beneke in urine. I found that some preparations of ordinary oxalate of lime, which had been kept for some years in preservative fluid, underwent a change in form, and were at length entirely replaced by beautiful prisms. Oxalate of lime may be obtained in its usual octohedral form from its solution in hydrochloric acid; and Neubauer states that from a solution in phosphoric acid it may be obtained in a crystalline form by neutralising the acid by soda or potash.

Dr. Thudichum has carefully examined the form of crystals of oxalate of lime obtained in different ways, and he brings all the different forms he has observed under the following heads: Quadratic octohedron, crossed octohedra, quadratic octohedron and prism combined; crossed prisms; triple twins, with tropia; modifications of crossed octohedra; contortions and anomalies, including dumb-bells. He also shows, contrary to previous statements, that the salt actually possesses a polarising power, as should be the case if it belongs to the quadratic system. This is, however, difficult to demonstrate, and can be "only brought out fully by reflecting a ray of the sun through the crystal", which accounts for the fact having escaped observation. I had long ago examined crystals by the polariscope which had been mounted in Canada balsam, and had noticed that they were often slightly illuminated when the field was dark. Although I had figured the form of the crystals correctly, I must confess that I was too ready to agree with the statements made by others as to the system to which this crystal belonged; neither was I sufficiently acquainted with crystallography to discuss this question fully. In this matter Dr. Thudichum has corrected me; and, after a reexamination of the question, it is only right that I should state that the octohedra, mounted in Canada balsam, do polarise even with a good artificial light; and therefore no argument in favour of the dumb-bell crystals being composed of oxalurate, and not of oxalate of lime, can be based on the statement that the octohedra do not polarise.

Dumb-Bell Crystals of Oxalate of Lime. Oxalate of lime, however, occurs more rarely certainly, but still not uncommonly, in another very interesting form, which was first pointed out by Dr. Golding Bird. From their resemblance to dumb-bells, these bodies are known as the dumb-bell crystals of

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Fig. 41.—Dumb-bells of oxalate of lime, of very regular form.
Fig. 42.—Small collection of dumb-bells, such as often forms the nucleus of a calculus.

oxalate of lime. Dr. Golding Bird thought that they were composed of oxalurate, and not of oxalate of lime; but the following points, in addition to what has just been stated, render this very improbable.

1. Octohedra, in all the cases I have observed, were deposited from the specimen of urine in which the dumb-bells

were found, and invariably precede and follow the appearance of the dumb-bell crystals.

2. Minute calculi are often composed of dumb-bells, as may be shown by microscopical examination; and these calculi have been proved by analysis to consist of oxalate of lime. (Fig. 42.)

The crystalline matter of the dumb-bell may be dissolved out by the prolonged action of acetic acid, when something very like a cell-wall remains. A certain quantity of organic matter exists in the interior of the apparent cell, and was no doubt in intimate union with the crystalline material in every part of the crystal. (*Illustrations*, Plate xi, Fig. 2, *t*, *u*, *v*, *w*.) Some persons have stated that these dumb-bell crystals were composed of uric acid—a mistake for which it is very difficult to account, since, in their optical characters and chemical properties, they widely differ. The uric acid dumb-bell is instantly dissolved by dilute potash, and, by the addition of excess of acetic acid, rhombic crystals will be thrown down; while the true dumb-bell is insoluble in a strong boiling solution of potash. Any observer, whose eye had been accustomed to the peculiar glistening appearance of the oxalate of lime dumb-bell, would not be likely to mistake it for a dumb-bell of uric acid.

Besides the dumb-bell, it is common to meet with a number of closely allied forms, among which may be mentioned circular and oval crystals. (*Illustrations*, Plate xi, Fig. 2, *a*, *b*, *c*, *d*, *e*, *f*.) In several of the cases which have fallen under my notice, the true and perfectly shaped dumb-bell was preceded by circular and oval crystals; and these also again appeared after true dumb-bells could no longer be detected in the urine. These crystals often disappear the day after multitudes have been found; and generally they are only noticed for a few consecutive days—a circumstance which may perhaps account for the comparatively few instances in which these crystals have been noticed.

Of the Formation of the Dumb-bell Crystals. It is well known that the octohedra of oxalate of lime are commonly deposited in the urine after it has left the organism; and if urine which contains very minute octohedra be allowed to stand for a few days, these may often be observed to increase in size, until at length they become very large crystals, while at the same time a number of new ones are developed. On the other hand, dumb-bell crystals are present in the urine when passed, and they do not increase in size or number if allowed to remain in the urine. These dumb-bell crystals seem to be formed in the renal tubes. I have found them entangled in casts in the urine of a cholera patient passed after eighteen hours complete suppression during the stage of collapse. The specimen of urine in which these casts were found was very acid, of a dark colour, and specific gravity 1024. The urine contained no albumen. The following report was made at the time of examination. Deposit very slight, consisting of transparent, smooth, and hyaloid casts, for the most part homogeneous, but in a very few of them a small quantity of granular matter was observed. In others, dumb-bell, oval and globular crystals of oxalate of lime were noticed. These dumb-bell crystals were seen only in the casts, but many octohedra were observed in the surrounding fluid. (*Illustrations*, Plate xxii, Fig. 1.)

I have seen many times a number of these dumb-bells impacted in the tubes of the kidney, especially in the pyramids. Indeed, if thin sections of this portion of human kidneys be made, these dumb-bell crystals will be observed not unfrequently. Often several may be seen in the wide portion of the tube, just before it opens upon the surface of the mamilla.

It is probable that where *octohedral* crystals are met with, connected with casts, they are deposited merely upon the surface or in the substance of the cast, after the urine has been allowed to stand for some time.

Of the Conditions under which Dumb-bell Crystals occur. I have met with a great many specimens of urine containing dumb-bells, but have been unable to associate the appearance of these crystals with any particular morbid condition. It may be interesting to refer to a few of these, which occurred in the hospital some years ago. During six months, I met with ten or eleven cases, in which these peculiar crystals were present, out of about four hundred cases in which the urinary deposit was examined; but I have not observed that the urine containing them possesses any characters by which we might be led to suspect their presence, before resorting to microscopical examination; and, from my own observations, it does not appear that the dumb-bells are connected with any peculiar form of disease, or with any particular diathesis. They occur usually mixed with the ordinary octohedra of the oxalate, but I have found them alone; frequently they are found accompanied with urate of ammonia and crystals of uric acid, and often with both. Out of ten cases in which they were present, eight were men, and the remaining two were women, above the age of 21. Of these ten cases, nine occurred between the months of September and January, and one in April; but this may be accounted for by the fact, that during the winter I have always made a much greater number of microscopical examinations than during the summer months. It may prove interesting to give a list of the cases in which these dumb-bell crystals, or crystals allied to them in form, occurred. They were present in—

One case of chorea.
Two cases of cholera.
One case of chronic rheumatism.
One case of contraction of the skin of the neck and upper extremities, the condition to which the term "hide-bound" has been applied.
One case of boils, occurring in various parts of the body.
One case of paraplegia, depending upon diseased vertebræ.
One case of attempted poisoning by taking half an ounce of oxalic acid.
One case of eczema.
One case of epilepsy.

Out of these ten cases, in which the dumb-bell forms of crystal were present, it will be observed that only two instances occurred in which they were found in the urine of patients afflicted with a similar disorder, and it is somewhat curious that these should be cases of cholera. The other cases differ so entirely in nature from each other, that it appears difficult to suppose that this curious form of crystal is any way dependent upon the nature of the malady, but we are rather led to conclude that these crystals arise from certain conditions in the secreting action of the kidney, unconnected with any particular disease. The dumb-bell crystals often occur in the urine of persons not suffering from any special disorder at all, who consider themselves in good health; but generally there is languor and loss of appetite, with uneasiness after eating, and the individual, without being able to give an account of any particular ailment, complains of not being quite well. Dumb-bells often occur in cases where little exercise is taken, with a full diet, and small quantity of fluids. The concentration of the fluids, and imperfect oxidation, are probably causes of the formation of these crystals in cases of cholera.

Sometimes several dumb-bells adhere together, forming an irregularly shaped mass, which gradually becomes smooth by the deposition of the same material in the interstices, until a small, nearly spherical or oval, mass is formed (Fig. 42). In other cases, it would appear that one or two crystals grow at the expense of the rest, and a perfectly uniform oval crystal, composed of course of numerous acicular crystals, radiating from a common centre, results. Thus the dumb-bell crystal becomes the nucleus of a small calculus, and it is easy to see how this may increase in size by the deposition of new matter externally—at first, while it remains in the straight portion of the uriniferous tube, or in that system of irregularly shaped cavities at the apex of the mamilla, formed by the convergence of several of the large tubes—then in the pelvis of the kidney or ureter, and, lastly, in the bladder itself.

Chemical Composition of the Dumb-bell Crystals. The chemical composition of these crystals has long been a matter of dispute among chemists, but it may now be regarded as nearly certain that they consist of oxalate of lime; for since it has been shown that the dumb-bell may gradually grow into a small calculus, and that the latter is composed of oxalate of lime, it follows that the dumb-bell or *microscopic* calculus has the same chemical composition. No difference in chemical character, refractive power, or in the action of polarised light, can be detected between the minute dumb-bell and oval crystal, and the aggregations of dumb-bells which are from time to time met with forming microscopic calculi. There cannot, in fact, be the slightest doubt of their being the same substance in different stages of deposition. Nor can there be any question of the latter being, in their turn, an early condition of the small renal oxalate of lime calculi.

Deposits associated with Oxalate of Lime. Oxalate of lime is often found associated with other deposits, particularly with urate of soda, in which case the minute crystals are easily passed over amidst the amorphous deposit, unless the latter be dissolved either by the application of heat or by the addition of a little potash previous to examination. The peculiar form of crystals of earthy phosphate described at the close of the last lecture are usually found in urine from which oxalate of lime is also deposited. Sometimes the crystals are so minute

that, without care, they may be readily passed over in a microscopical examination; and very frequently the only appearance observed in the microscope is the presence of clusters composed of minute cubical or square shaped crystals, which appear almost opaque. Indeed, such clusters of oxalate of lime crystals may be easily mistaken for urate of soda, from which, however, they may be readily distinguished by the fact of their not being dissolved upon warming the slide, and by their insolubility in potash and acetic acid. Crystals of this character are often found adhering closely to hairs and other substances. Deposits of oxalate of lime and uric acid are represented in the *Illustrations*, Plate xxi, Figs. 5 and 6; and of oxalate of lime and phosphate, Plate xxii, Figs. 5 and 6.

Of the Examination of Deposits of Oxalate of Lime by the Microscope, and of their Chemical Characters. The larger crystals are readily recognised by their microscopical characters; and the only crystals I have known mistaken for them are crystals of triple phosphate, as I mentioned when speaking of the phosphatic deposits. If, however, there be any difficulty, a drop of acetic acid will soon set the question of the composition of the crystal at rest.

Oxalate of lime deposits seldom sink to the bottom of the vessel in which the urine is placed, but seem to be buoyed up by the slight mucus deposit present. When, therefore, a drop of urine is taken for examination, there is no necessity for taking it from the very bottom of the vessel, the stratum of fluid slightly above this point being often found richer in crystals. Oxalate of lime seldom occurs in urine in sufficient quantity for chemical examination. If oxalate of lime be burnt in a platinum capsule, and the carbonised residue be exposed for some time to the dull red heat of a spirit-lamp or other flame, a white deposit will remain, which will be found to be insoluble in water, but it will be dissolved in acetic acid with copious effervescence, showing that, by the process of combustion, the oxalate has been converted into carbonate. If however, the carbonate has been exposed to a bright red heat, there will be danger of its partial or complete conversion into lime, in which latter case no effervescence will occur upon the addition of an acid. In the acetic acid solution, the presence of lime may be detected upon the addition of oxalate of ammonia, oxalate of lime being quite insoluble in acetic acid.

Of Oxalate of Lime in a Clinical Point of View. There is still much difference of opinion among practitioners as to the clinical importance of oxalate of lime. There can be no doubt that, in the majority of instances, the crystals form after the urine has left the bladder; and there is good reason for believing that the oxalic acid may be formed by decomposition of the urates after the urine has been passed. The experiments of Dr. Aldridge of Dublin showed that uric acid and urates were easily decomposed into oxalic acid and oxalates. Dr. Owen Rees entertains the opinion that this substance is derived from the urates; and that, when present in the urine, it indicates the existence of urates in the blood. This physician holds "that the oxalic diathesis is merely an accidental and unimportant modification of the uric". Oxalate is often deposited in the urine of gouty cases, and it is certainly very often found among urate deposits. We may consider it as proved that there are certain conditions of the system in which both oxalates and urates are formed, and that from time to time cases occur in which one class of salts predominates. In the same case, at one period we may find uric acid and urates; after a time, these mixed with oxalates; and lastly, they may give place to a deposit of oxalate alone. Wöhler and Frerichs injected uric acid into the blood of a dog, and found oxalate of lime in the urine. Oxalate of lime passes through the alimentary canal unchanged; but oxalic acid is in part excreted in the urine, while part is decomposed in the system. Bucheim and Piotrowsky have shown that small repeated doses of oxalic acid (fifteen grains every hour for six hours) are not poisonous. Not more than 12 per cent. of that taken by the mouth appears in the urine.

Oxalate of lime is, however, not always formed after the urine has reached the bladder. We saw that there was very strong evidence that in certain cases it was deposited in the tubes of the kidney, in the form of dumb-bell crystals; and it must therefore have been formed at the time of the separation of the urine from the blood, if it did not exist in solution in the blood itself.

It appears, then, that oxalate of lime may be excreted in the urine when oxalic acid or oxalates are taken in the food. It may be formed in the organism itself; and it may be produced by the decomposition of uric acid and urates after the urine has left the bladder.

Beneke has shown that the quantity of earthy phosphates and oxalates increases in direct proportion to each other. The nutrition of the tissues generally would be impaired under the same circumstances; and a larger amount of earthy phosphate would pass off in the urine dissolved by the oxalic acid. (*Archiv des Vereins*, Band i, Heft 3.)

After what I have said, you will not feel surprised that the presence of oxalate of lime in the urine should afford us but little help in the diagnosis of the case. It is often discovered in almost opposite conditions. Thus it is sometimes present in poor broken down subjects, and it is found in the urine of well to do country gentlemen. It will appear when we live too well and take too little exercise. It is common in chronic pulmonary affections, as bronchitis; and it is often observed in old cases of emphysema. It is common enough in dyspeptics, and is usually met with in cases of jaundice. In various forms of general debility, in cases of overfatigue, and in men who have overworked their minds, it is perhaps the commonest urinary deposit. Lastly, I have found it many times, and in very large quantity, in the urine of men who appear in all other respects in perfect health.

It is impossible for me to enter into a discussion as to the treatment required in these cases. As a general rule, it will be found that anything which improves the general health and promotes oxidation will diminish the tendency to deposit oxalate of lime. Cold bathing, exercise, attention to diet, and the mineral acids, bitter tonics, and iron, are usually prescribed with advantage. When the dumb-bells appear frequently, it is desirable to promote their expulsion from the kidney, and prevent their formation, by giving mild diuretics with plenty of fluid; or two or three glasses of Vichy water daily will wash them out of the uriniferous tubes.

[*To be continued.*]

Illustrations
of
HOSPITAL PRACTICE:
METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

CASES OF STRICTURE OF THE RECTUM OR LOWER PART OF THE COLON.

Under the care of James Russell, M.D.

Clinical Clerks—Messrs. May and Poncia.

Case i. J. W., aged 32, lamplighter, applied at the Hospital, to be treated for chronic diarrhœa. He states that he has never been free from purging for the last seven years; and refers the commencement of his illness to cold. Three months ago, he had a very severe attack, accompanied with pain, and was obliged to lie by for a fortnight. About a month afterwards, he was suddenly seized, on returning from work, with cramp in his bowels, legs, and thighs; and for the last three months he has frequently suffered from pain in his back and bowels, generally with a good deal of flatulence.

About a month ago, his complaint compelled him to leave work permanently; and, three days before admission, he had an attack of more than usual violence, accompanied with much straining, and intense pain in his back. On questioning him closely, it was ascertained that his bowels were constipated between the fits of purging, frequently for two or three days together; then diarrhœa followed, for three or four days, at the rate of seven or eight stools in the day, at first copious, and subsequently scanty. He describes his evacuations as having resembled barm in colour and appearance; they were fluid and frothy. He fancies he had piles when about sixteen; but has never passed blood in his stools. His habits have been temperate. His gums present no mark indicating the presence of lead. He is spare, but has a healthy aspect. His abdomen is very full and resisting; in the region of the sigmoid flexure of the colon the anterior wall is very prominent and full, and the prominence extends into the left flank, imparting to that region a very marked projection. The loin is normal. The prominent part is imperfectly tympanitic, but no fluctuation can be distinguished. A dose of castor oil produced an evacuation, of solid consistence, and of a dun colour; and the prominence previously noticed was entirely removed. He was

ordered to take a small dose of castor oil each morning: the stools were of the colour of barm, homogeneous, and of the consistence of batter.

Under the suspicion of stricture seated in the rectum, that bowel was twice examined with the finger: at a point as high as the finger could reach, a contraction of the bowel was thought to exist, but it was situated at too great a height for a satisfactory conclusion to be drawn. It was noticed, however, that whilst the lower part of the rectum was empty, the tip of the finger came into contact with fæcal matter at the point of the supposed contraction.

Mr. Bolton was then requested to examine the patient with a bougie, and the suspicion of stricture previously entertained was converted into a certainty.

Case II. W. L., aged 33, shingler, was admitted, complaining of troublesome purging. He dates the commencement of his disease two years back, and attributes his first attack to a large meal of pickled cabbage, which was followed by severe vomiting, purging, pain, and cramp. Ever since this time, he has suffered from alternate fits of diarrhœa and constipation; remedies applied to relieve the diarrhœa always inducing obstinate constipation and considerable disorder of his stomach, accompanied by retching and offensive breath; the constipation again was met by aperients, but their action was followed by purging. On an average, he had six evacuations in a day during the continuance of the diarrhœa; and two or three days before his admission, he was purged twenty times in one day, and ten times on the following day. When his bowels were relaxed, he had much pain throughout his abdomen, accompanied by rumbling; and he had frequent calls to empty his bladder. He has never perceived blood present in his stools, save on one occasion, when for three weeks he noticed a streak of blood in every evacuation. He has evidently been very imprudent in his diet, indulging largely in pork, of which he is very fond, but always with evil consequences. His daily allowance of ale has been three pints, with half a gallon of thick beer when at work by night. For the last six months his stomach has been very irritable, his strength has failed, and he has lost flesh considerably.

He is thin, and looks decidedly cachectic; has plainly lost flesh lately. No evidence of disease was discovered in his chest, nor in his abdomen, with the following exception. The abdomen is full, but soft. The left loin is very unnaturally prominent, and the left iliac and the lower part of the left lumbar region of the abdomen also present great fullness; all the prominent regions are tympanitic. After this examination, a small dose of castor oil was administered, with the effect of bringing away an evacuation which nearly filled the pan of a night chair, with soft homogeneous fæcal matter, of a tawny colour, and without any solid masses. The action of the medicine was not accompanied by pain. On the following day, it was noticed that the local fulness was decidedly lessened.

During the time he was under observation, the number of his evacuations during a day varied from one to four; the quantity passed was at times very large, sometimes very moderate or scanty, and the local prominence presented corresponding variations. The character of the fæcal matter was very peculiar; it was usually of soft consistence, like batter, homogeneous, and of a tawny yellow colour; sometimes a portion of an evacuation approached nearer to solid consistence, but generally the fæces were semifluid. On some occasions, fermentation in the matter evacuated was very evident, from copious development of froth on the surface.

A copious warm water enema, prescribed one evening, failed in causing an evacuation, but was followed by the passage of so much flatus of extreme fætor, that it was impossible to remain near his bed; the enema, repeated next morning, nearly filled the chamber-pot with semifluid fæcal matter.

It was noticed that steel occupied a considerable period in producing any alteration in the colour of the fæces. Nine days elapsed, from the time of his commencing the medicine, before any sensible change was effected, and even then the change was very slight.

The rectum of this patient was examined several times without the finger reaching any constriction in the gut; but a bougie was subsequently introduced, once by Mr. Goodall, and subsequently by my colleague, Mr. Bolton, and in neither case could it be introduced beyond four inches. Mr. Bolton entirely coincided with me, in thinking that a stricture existed at the upper part of the rectum.

In the following case, which presented itself to my notice at the General Dispensary, the existence of stricture was not established by the examination, but the symptoms leave little doubt of its presence; together with the history, they present a striking resemblance to the cases already detailed.

Case III. J. W., aged 28, potash-worker, applied to be treated for obstinate diarrhœa. He has been subject to diarrhœa for more than twelve months, at the rate sometimes of five or six stools in the day. Before he became ill, his bowels were always regular; he never had piles, nor had he passed blood in his stools; he has never had straining at stool. During the last four months, his bowels have swelled, and have caused him much uneasiness; he has had pain at his epigastrium, sometimes increased by food; after eating, his discomfort was much increased; and he has even provoked vomiting to relieve himself from the distension. He describes his stools as having been fluid, frothy, and like barm. He is relieved by the evacuations. Latterly, he has noticed some blood mixed with the fæces. His urine has been scanty, and has been passed more frequently than natural.

He has never been a "drinker"; has worked in a brick-yard all his life; and has suffered much from the consequent exposure to cold. He has been emaciating for the last six months. His father died of obstruction of the bowels.

He is a cachectic looking man. His abdomen is generally much distended, but no local prominence nor dulness was discovered at the first examination; at a subsequent visit, however, very marked fulness was noticed in the region of the sigmoid flexure of the colon. When the finger was introduced into the rectum, it entered a wide open pouch, but no constriction could be detected.

Previous to the more careful examination mentioned above, I had treated him in a routine manner for his diarrhœa; but the entire failure of remedies directed my attention more particularly to his case. The action of a dose of castor oil was then found to have produced an evacuation, which quite filled a good sized chamber-pot with fæcal matter, of the colour of barm, and most of a doughy consistence. The action of the medicine was followed by much relief. The abdomen remained very full, but soft, and on suddenly pressing the left flank, a slight splashing sound was produced, and an obscure fluctuation was felt. The repetition of the oil brought away other stools of a like character.

He soon afterwards passed from under my observation.

These cases present a remarkable uniformity, and afford a good illustration of the ordinary history and symptoms of stricture seated at the lower portion of the intestinal canal. It will be observed, that almost the only complaint made by the patient was of diarrhœa, often accompanied by pain, and continued through a long period of time; indeed, it was for the relief of this symptom that the patients presented themselves. The protracted continuance of so-called diarrhœa at once drew my attention to the nature of the case; and when this symptom exists for a considerable time, and is not attended by any evidence, in the nature of the evacuations or in the history of the patient, of those diseases which usually produce chronic diarrhœa in the adult—*e. g.*, tuberculosis or dysentery—it appears to afford grounds for strongly suspecting the presence of stricture of the intestine.

On being particularly interrogated, the patients usually admit that the fits of purging alternate with periods of constipation; but, unless their attention is directed to the circumstance, the constipation is very liable to escape their notice, their entire attention being absorbed by the repeated evacuation of the bowels which ensues. One of the patients graphically described the difficulty occasioned by the unmanageable action of astringent or laxative medicines, given at different periods to relieve his sufferings.

This so-called diarrhœa is no doubt the consequence of excessive repletion of the intestine just above the seat of constriction. The fæcal matter is carried down to this spot; it accumulates there, until at last the distended intestine becomes stimulated to violent and irregular contraction, during which a portion of the contents is expelled by successive and often painful efforts, until the local excitement subsides, and the process of repletion again goes forward. One of the patients stated that, as the "purging" went on, the quantity of fæces evacuated progressively lessened. It is characteristic of such a case, that the action of an aperient affords a very considerable amount of comfort for a time.

The following case further exemplifies this point in the history of such patients, and also affords an interesting illustration of the small amount of credit to be attached to the report given by the patient himself of the state of his bowels, as regards diarrhœa or constipation. It also enforces the importance of

an examination of the stools in every doubtful case of bowel-disorder.

Case iv. I was asked by my late friend Mr. J. Simons to visit with him Mr. O., aged about 64. The patient had sent for Mr. Simons, to be relieved of diarrhœa, attended by straining and bearing down. After finding that the usual remedies failed to afford relief, and being struck by a tendency to collapse in the patient, Mr. Simons requested his evacuations to be preserved. On the following morning, his patient informed him that the diarrhœa had occurred eight or ten times in the course of the night: but, on examining the close stool, scarcely a tablespoonful of fæcal matter existed as the product of these supposed repeated evacuations. The patient absolutely refused to permit any examination of his rectum, nor would he allow an enema to be introduced.

I found him somewhat easier. He was a spare and wiry man, of somewhat florid complexion. With some difficulty he was at last induced to submit to the introduction of an enema; and on the next day but one, on repeating my visit, I was shown a chamber-pot nearly filled with fœtid stool, containing abundant scybalous lumps. I did not see the patient again; but I heard from Mr. S. that the enema required to be often repeated, and that tenesmus continued. The bowels acted every third day; a considerable quantity of fæces passing, in long cylinders of about the size of a tobacco-pipe. He had also discharges of mucus from the rectum, often to the amount of two tablespoonsful three times in the day. He became greatly emaciated, and died in rather more than four months from the period of my visit.

Sectio Cadaveris. The abdomen alone was examined. All of its contents were quite healthy, excepting the rectum. The sigmoid flexure of the colon and the first part of the rectum were drawn firmly into a double coil, like the letter S, and lay upon the promontory of the sacrum. The rectum presented externally its ordinary appearance, but felt exceedingly dense and firm. The cellular tissue outside the bowel, below the pelvic fascia, was densely infiltrated, so as to form a hard mass closely surrounding the rectum; the vesiculæ seminales lay in part in this mass; the ureters were free. This firm mass had not compressed the rectum, beyond the capacity which it ordinarily assumes when not distended, below the fascia; but, at the point of reflection of the pelvic fascia, the gut was so much narrowed as hardly to admit the little finger. The infiltration had extended up the mesorectum, binding the intestine closely to the sacrum, and by its contraction producing the double fold mentioned above. The submucous cellular tissue of the rectum was greatly thickened throughout, and presented a semitransparent aspect, exactly as in stricture of the pylorus; just above the anus, it was more than half an inch thick; thence, in ascending, the thickening gradually lessened, ceasing with the upper termination of the rectum. The mucous membrane was natural, excepting that it was bound down by the firm underlying tissue. The glandular apparatus of the abdomen was healthy. My notes are imperfect, in not having preserved the microscopic appearances of the infiltrated tissues. I only remember that the thickened submucous tissue was found loaded with nucleated cells—I presume, of cancerous origin.

The character of the stools in the foregoing cases was peculiar; the evacuations were generally described as having been fluid, sometimes frothy, and resembling barm. When examined by ourselves, they presented a tawny colour, were homogeneous and semifluid, like batter. In some instances, however, they contained some matter of firmer consistence.

In ordinary cases of constipation, or in colic, in which probably the whole length of the colon is inactive, the contents are strewed through the entire gut; here they become partially dried, and rolled into the isolated lumps known as scybala; but, in case of stricture seated in the lower part of the large intestine, the bowel is active; the fæcal contents are carried down to the seat of constriction, where they accumulate, and thus resist the process of drying, and retain their semifluid consistence; here, too, they are probably further softened by secretion from the mucous membrane, increased by irritation.

Some time ago, I met with a case in which fæces of this soft and homogeneous consistence were present throughout the entire length of the large intestine, and even existed in the ilium; but here the bowel was *perfectly filled* by its fæcal contents, in consequence of some obscure paralysing influence exerted upon its muscular fibre; here the fæces retained their semifluid consistence, in consequence of accumulation. Case iv, however, proves that this character of the stools cannot be assumed as necessary to the disease under consideration.

General fulness of the abdomen, with very marked local distension in the region of the sigmoid flexure and in the left loin, were distinctly noticed in these cases; the prominent part presenting tympanitic resonance, notwithstanding the large accumulation of solid matter. In two of the cases, irritation of the bladder was spoken of by the patients, no doubt from proximity to the distended gut.

Exploration of the rectum by the finger did not enable me to feel the strictured portion; but the descent of the upper part of the gut within the lower part, and the extremity of the finger coming in contact with fæcal matter, whilst the lower portion of the bowel was empty, strengthened the suspicion excited by other features in the case.

But another characteristic sign is especially noted in one case, a symptom which has been particularly insisted upon by Dr. Fletcher of this town, as diagnostic of stricture at the sigmoid flexure or the commencement of the rectum. In place of the ordinary collapsed or contracted state of the pouch of the rectum—a condition naturally assumed by the bowels when empty—the finger enters a large capacious cavity, produced by distension of this portion of the bowel with flatus. This flatus, being generated immediately above the rectal pouch, in the place where the fæcal matter is collected, enters that gut, and, being resisted by the contraction of the sphincter, remains imprisoned, and maintains the rectum in a state of complete distension. In one remarkable case observed by Dr. Fletcher, the accuracy of this test was proved; local tumefaction and dulness, combined with local fluctuation, existing in the region of the descending colon and sigmoid flexure, led to the supposition that there was a stricture in the rectum. But the rectum was contracted. It was found, on *post mortem* examination, that a stricture existed in the small intestines; and that some coils, greatly distended with their contents, had descended into the lower part of the left region of the abdomen, where they had produced the local tumefaction noticed during life. That I did not uniformly meet with this valuable symptom in the foregoing cases, was explained at the time by my having made the examinations, on more than one occasion, soon after the action of an aperient.

It is obviously of great importance to arrive at a correct diagnosis of these cases, since they afford an opportunity of relieving the patient by opening the descending colon. But, in the later stages of the disease, the local distension is often obliterated by the general tumefaction of the abdomen; and even local dulness and fluctuation may not be perceived, from the same reason. In such a case, the sign pointed out by Dr. Fletcher becomes of great value. The importance of an early diagnosis was impressed on my mind by the following unfortunate instance.

Case v. An elderly woman applied to me at the time I was connected with the General Dispensary. She appeared to be suffering from simple constipation. From unfortunate but unavoidable circumstances, a week elapsed without the nature of her case being discovered; she then became much worse, and placed herself under the care of Mr. Baker of Bordesley, by whom I was courteously requested to see her. There was then no difficulty in arriving at a conclusion respecting her disease; and, as she was sinking, the operation of opening the colon was proposed to her friends—without, however, our venturing to hold out much hope of success. She declined to submit to the operation, and died on the following day. On a *post mortem* examination, a simple annular stricture was found, seated in the rectum, about four inches above the anus. The bowel was otherwise in a perfectly healthy condition; and the colon had, by extreme distension, rendered the superincumbent parts so thin, that little besides the integument would have required division, in order to afford an outlet for the fæces.

The perfectly local nature of the affection in this case rendered it especially eligible for the operation. The following cases, like the one just narrated, exhibit the disease when it has arrived at the stage of complete and fatal obstruction. In both, ulceration of the coats of the bowels had occurred. The history is, unfortunately, very meagre in both.

Case vi. A woman, aged 50, died of obstruction of the bowels, after complete obstruction of a fortnight's duration. When I saw her, she was too near death to admit of an operation being performed. She denied that she had any symptom at a more remote period than a month before her death, though her friends stated that she had complained of pain in defæcation for a twelvemonth. We found the intestines glued together by lymph, especially in the pelvis, some force being required to separate them. The colon was considerably distended with flatus, but did not contain so much fæcal matter as

had been anticipated. Towards the upper part of the descending colon, a very small ulcerated aperture, two lines in diameter, existed; but no fæcal matter had escaped, though flatus had passed abundantly, and had distended the peritoneal cavity, entirely obliterating any sign of local tumefaction before her death. A stricture existed in the rectum, within reach of the finger introduced through the anus; it consisted of a circular firm belt, about half an inch broad. The mucous membrane, both above and below the stricture, was perfectly healthy. In the space occupied by the constricting band, it was much puckered, but otherwise was healthy. The coats of the intestine above the stricture were considerably hypertrophied. The mesorectum was thicker and firmer than ordinary, and contained some enlarged glands. The mesenteric glands and the other contents of the abdomen, as also the organs within the chest, were healthy. The stricture consisted of fibrous tissue, with a large number of very minute cells, the largest of which did not exceed the one-thousandth of an inch in diameter. With them were small globules and nuclei, and amorphous matter.

Case vii. A female, uged 45, was seen by Mr. Orford the day before her death. A stricture of the intestine was found in the sigmoid flexure of the colon; the intestine at the spot was bound tightly to the pelvis. An ulcerated opening existed at the strictured portion, through which some of the contents had escaped. The cæcum and the ascending colon were greatly distended; otherwise the intestines were healthy. There were the results of general peritonitis. The stricture had the appearance of a firm string tied round the bowel. An ulcerated opening was discovered in the intestine, at its most constricted part.

Original Communications.

TEN YEARS OF OPERATIVE SURGERY IN THE PROVINCES.

By Augustin Prichard, Esq., Surgeon, Clifton, Bristol.

IV.—Operations on the Genito-Urinary Apparatus.

[*Continued from page* 953.]

Amputation of the Penis. Case cxxii. W. D., aged 43, had for some time great induration and swelling of the prepuce, with ulceration and thickening of the glans penis, commencing eighteen months before his admission, with a small hard point on the inner side of the prepuce. He had always a long prepuce. His general health was good, and the inguinal glands were unaffected.

I was obliged to remove the entire organ down to the pubes. Considerable retraction ensued, and there was active hæmorrhage for awhile from vessels requiring a ligature. I attached the skin to the mucous membrane of the urethra by three sutures. He went on well until the evening of the fifth day, when hæmorrhage came on, and I had to tie a portion of the corpus spongiosum, from which the blood flowed freely. He lost a large quantity of blood in this way. The wound soon healed; but there was some disposition for the opening of the urethra to contract; and when he went out, he was directed to pass now and then a portion of bougie. I never heard that the disease returned.

In connexion with this case, I may mention one also involving loss of the penis, which I can scarcely describe as an operation case. A married man, aged 23, the father of a child or two, came under my care, having suffered for nearly two years from chronic phagedenic ulceration, which had eaten away nearly all his penis. I applied nitric acid (under chloroform), and gave him good diet; and, as this application failed, I applied a saturated solution of the chloride of zinc, under which the parts healed rapidly, leaving two irregular pendulous portions, which I considered to be stumps of the *corpora cavernosa*. They were about half as long and thick as my little finger, and seemed to have but little vitality, and no relation to the urethra; and, as they were sore and inconvenient, I cut them off, leaving him in the same condition as the man whose penis I had amputated for malignant disease. A smart hæmorrhage followed this little proceeding, but it stopped; and he was discharged; cured, I may add, of his disease, but quite shorn of his penis.

Circumcision. Case cxxiii. J. B., aged 10, admitted with congenital phimosis. The urine came with considerable difficulty through an opening about as large as a pin. I passed two needles through the prepuce, cut it off, divided the mucous membrane, and stitched it back in place. The sutures were removed the third day, and he was soon cured.

Case cxxiv. J. C., aged 10, with congenital phimosis. The operation was performed as in the other case. The sutures remained until the third day, and the boy was soon cured.

The following cases are where the phimosis was acquired.

Case cxxv. A. B., aged 11, was bruised two years before his admission, and phimosis gradually ensued. The operation was performed as usual, two sutures being used. He went out cured in a few days, much pleased with his power of making water freely.

Case cxxvi. J. S., a blind lad, aged 18, received a kick when he was ten years old, and since that time he had increasing difficulty in making water; the glans and prepuce were adherent, and the orifice almost invisible. In this case, I was obliged to cut through the prepuce, and then strip and dissect it away from the glans; and, after passing two needles through it, I removed it completely, tying the threads so that the wound was lessened. The stitches were removed on the fourth day. It was requisite to dilate the orifice of the urethra occasionally with a bougie, as the healing took place; and I directed him to pass a piece of it now and then after he went out. He made water in a good stream.

Case cxxvii. J. H., aged 20, with phimosis of eight years standing. The operation was performed by slitting up the prepuce, cutting it off, and bringing the skin and mucous membrane together. One vessel bled so freely that it required a ligature, and as it healed he suffered considerable pain. The ordinary lotion of the acetate of lead proved to be the most comfortable application. He was soon cured.

Case cxxviii. D. S., aged about 40, with phimosis of some years standing. In this case, I slit up the prepuce, cut it off, and sewed it up. It healed, but not quite so quickly as usual; for the man's skin was quite covered with an eczematous eruption, which interfered with the cure.

Case cxxix. A. N., aged 36, was admitted with ulcered leg, phimosis, and, besides, a scar almost closing the urethral orifice; and the latter inconvenience was so great that he asked for relief, which he easily obtained by my slitting up the opening of the urethra with a sharp pointed bistoury. The result of this operation, and his increased freedom in making water, relieved him so much that he asked me to circumcise him, an operation I had before advised him to undergo. I therefore passed in some needles, trimmed off his superabundant prepuce, and stitched the parts together by means of six sutures. The wound soon healed.

Case cxxx. A. C., aged 14, bruised his penis six weeks before admission, at which date he had phimosis, with much induration and swelling. After using various means to get rid of the inflammation and thickening, I circumcised him, and he was speedily cured.

Operations for Hydrocele and Diseased Testicle. In the following statement of cases of the cure of hydrocele, I have made no note of those which were simply tapped and sent away. They are narrated in the order in which they occurred.

Case cxxxi. B. D., aged 36, had been already tapped once, but the fluid returned, and the swelling interfered with his work. I injected half a drachm of the compound tincture of iodine, with a drachm and a half of water, after removing the fluid. He complained of much pain afterwards, and by the fifth day the scrotum was almost as large as before the operation. The swelling from this time gradually subsided, but he was not cured completely until six weeks had elapsed.

Case cxxxii. J. F., aged 52, had a hydrocele of only a few months standing. I tapped it, and drew off some dark coloured thin fluid, followed by flakes of fibrine; and injected a drachm and a half of the compound tincture of iodine, to two and a half of water. In three weeks the tumour was as large as ever, and hard; and I repeated the tapping and injecting, with an exactly similar result. Some time after this, finding no disposition in the tumour to shrink, I laid open the tunica vaginalis, under chloroform, and found a surface covered with gelatinous lymph, the result of the former operations. This surface was wiped dry with a sponge, and filled with lint. The wound gradually closed, and he was cured.

This was originally a mixed case of hydrocele and hæmatocele. The examination of the fluid that was drawn off showed chiefly broken down blood-corpuscles; and it would have saved the patient some weeks residence in the Infirmary, if I had laid open the cavity at first.

Case cxxxiii. W. H., aged 17, had been tapped twice before I saw him, but the disease had returned. I injected half a drachm of iodine to a drachm and a half of water. In two days, the swelling was as large as ever; but it soon subsided, and he went out cured.

Case cxxxiv. J. J., aged 50, had been frequently tapped for hydrocele of the right side, and had undergone an operation for strangulated inguinal hernia upon the same side. I tapped and injected the hydrocele; on the third day, it was as large as ever, but it soon shrank, and he was cured.

Case cxxxv. A. S., aged about 40, had been already tapped, without a cure being effected. I tapped, and injected the iodine; and he was cured in about two weeks.

Case cxxxvi. T. K., aged 58, a sailor, much accustomed to have his hydrocele tapped. I injected the solution of iodine as usual, and within an hour it was found in his urine. After the return of the swelling, it again subsided, and he was cured in about a fortnight.

Case cxxxvii. M. B., aged about 35, had a small hydrocele, which he was anxious to get rid of. I tapped it, and introduced on a probe a grain of the nitric oxide of mercury. He suffered little or no pain; and he went out cured, without any further return of the swelling.

Case cxxxviii. The last case, in which the nitric oxide was used instead of the iodine, was so successful that I determined to try the plan again, and used it on this patient, who had a hydrocele about as large as an orange. He was twenty years of age. The operation was as before; and he went on well for two days, when excessive inflammation came on, requiring leeches and fomentations; and the scrotum became very red and painful, and suppurated at the upper part. He suffered a great deal of pain and constitutional disturbance, but was eventually quite cured.

Case cxxxix. The pain and prolonged inflammation which the last patient suffered made me give up the nitric oxide plan, and return to the iodine, which had never failed me. I therefore tapped and injected as usual this patient, and he was soon cured.

Case cxl. B. C., with large hydrocele of the right side. It was tapped and injected as usual, and its subsequent course was satisfactory.

Case cxli. T. M., aged 40, had also a very large hydrocele of the right side, from which I drew twenty-four ounces of serum glistening with cholesterine, and injected one drachm of compound tincture of iodine to two of water. He was speedily cured; and in this instance there was but little of that swelling that is generally the immediate consequence of the injection, before absorption and adhesion took place.

Remarks. I have nothing new to report respecting the operation. I always make a puncture with a lancet before introducing the trocar; and I believe that, for the radical cure, the plan of iodine injection is the best. The little that I have seen of the mode of treatment by wires has not been encouraging.

Castration. Case cxlii. J. W., aged 33, with ulcerating carcinoma of the right testicle, of two years standing. He was a weak, unhealthy subject, with shortness of breath and enlarged spleen. I operated under chloroform, and removed a large hard testicle, with the adherent and ulcerated skin. I stripped it up from the subjacent textures easily, and divided the cord last. Two vessels required ligature; and I inserted two sutures, to bring the parts together, leaving the wound partially filled with lint. Notwithstanding this, bleeding came on at night; and the wound was opened, and one vessel required to be tied. This retarded his progress, and he seemed to be long recovering himself. He went out quite well, after about six weeks stay; and I never saw him again. The microscopic appearance was very characteristic.

In connexion with the foregoing case, I may briefly mention another, in which the patient appeared much more constitutionally affected, and the local disease seemed worse, but who was, nevertheless, cured completely without operation. A man was admitted under my care with a large ulcerated swelling of the scrotum upon one side, which had existed many weeks, and which had a dark, unhealthy aspect, and discharged sanious matter with the most fetid odour. At the first view of this case, I thought it must be of a malignant character; for, besides the local disease, the man was sallow, extremely emaciated, with hectic, and he had enlarged inguinal glands. The history, and the appearance of laminæ in some of the edges of the tumour, led me to suspect that it was not cancer; and the result proved that it was hæmatocele, following a blow, which had suppurated; and the layers of hard fibrinous matter, which clung in concentric order to the sides of the tumour, as is the case in aneurism, were being destroyed and cast off. I assisted in this process with the scissors and forceps, and ultimately removed the whole disease, leaving a healthy testicle behind; and, with the aid of wine, quinine, and cod-liver oil, he regained his health entirely.

It has appeared to me that hæmorrhage has followed a few hours after the operation for diseased testicle so frequently, that on future occasions I should prefer to leave the wound entirely open, and allow it to granulate, as in the case of hæmatocele.

Operations upon the Female Organs.

Removal of Enlarged Clitoris. Case cxliii. J. W., aged 21, had a swelling of the size of an apple at the upper part of the fissure, between the labia, apparently resulting from gonorrhœa. I removed it by simple incision; and, upon examination, it appeared to consist chiefly of an enlargement of the clitoris, especially of the *preputium clitoridis*, with effusion of fibrin and serum. The divided vessels bled very freely, and three required ligature. She went out cured in a few days.

Case cxliv. C. C., aged 25, was admitted with a tumour of the clitoris, of the size of an orange, with an irregular warty surface. I removed it by incision; and there was copious hæmorrhage from numerous vessels, which sent out the blood with considerable force in every direction. Four were tied, and lint dipped in turpentine applied over the surface. She went out cured, but not for some weeks, as there was considerable induration in the surrounding parts.

Case cxlv. M. D., aged 59, was admitted with a tumour of a vascular nature at the orifice of the *meatus urinarius*. It was not so red and vascular as the smaller tumours seen at that part. I removed it, and it was about as large as a filbert. I tried to cut through its base with the galvanic cautery at first; but the wire would not pass through, and I therefore cut it off with a knife and tenaculum, and cauterised the bleeding surface with a heated galvanic wire. A catheter was placed in the urethra.

Within three weeks the disease had returned, and it was necessary to operate again; and therefore, after removing it, I applied potassa fusa to the part, and made a considerable slough. This had the desired effect; and she went out well, and was well some years afterwards, when I last saw her.

The age of this patient was against the idea that the tumour was one of the ordinary vascular tumours at the orifice of the *meatus urinarius*, and I believe it to have been an epithelial cancer. I much regret having kept no record of the microscopic appearance of it.

I have also treated three cases of the ordinary vascular tumour with scissors and the application of caustic to the cut surfaces; and all with success. In one, the growth extended into the canal; but, upon firm traction, the whole of it could be reached. There was nothing very specially worthy of record in their history; one of the patients was upwards of forty years of age.

Epithelioma of Vagina. Case cxlvi. This was a woman about fifty-five years old, in whom a tumour had been growing for some years from the anterior wall of the vagina, near its orifice. She was married, but had never been pregnant. There was a good deal of induration about the part. I removed a considerable portion of the mucous membrane with the diseased surface by means of ligatures, passing a needle armed with a strong thread through its base; and, as soon as the slough came away, I touched the parts repeatedly with a saturated solution of the chloride of zinc, under which treatment the disease seemed to yield, and I ceased to attend her. I am sorry to say that I have had no opportunity lately of hearing how she is; but, many months after the application of the caustic, her husband told me that she was much better.

Obliteration of the Vagina. Case cxlvii. E. C., aged about 25, had suffered from sloughing of the vagina from protracted labour, and the opposite surfaces afterwards united. She had undergone an operation with a view to restore the cavity; but the only result was to open the bladder near its neck, thus making a fistulous opening.

I applied a red hot iron to this opening; and, with a finger in the rectum, I attempted to cut open a cavity that should avoid the bladder and reach the uterus. After a long trial, I failed, and could not reach that organ, as so much of the substance of the vagina had been lost. A plug was inserted into the opening made, and it seemed more promising; but after a few days she became discontented, and went home. I afterwards heard that other attempts of a similar kind were made on her, with a like result.

Case cxlviii. E. B., aged 22, a tall country girl, suffered from periodical pain in the lower part of the abdomen and inguinal regions, but without tumefaction. There was no trace of vagina; the urethra was normal; but the nymphæ joined together below, instead of being separated by a cavity.

I operated; and, with a catheter in the urethra, cut below into the cellular tissue between the rectum and urethra; and, after stripping away the parts for some distance, I felt something hard like the os uteri, as if it was covered with a thick membrane. I therefore drew down the tissues with a forceps and hook, and divided them carefully; the tissue was very hard and white. After doing this several times, and exposing the hard body to the finger more distinctly, I suddenly cut into some cavity, and a small round mass dropped out like a piece of jelly; and I at once concluded that I had arrived at the os uteri, and that a plug of mucus had escaped. Upon introducing the finger, however, it passed through an aperture into a cavity, in front of which could be felt a smooth hard body, like the back of the uterus; and I was persuaded that I had cut into the peritoneal cavity, and this alarming idea was much strengthened by our discovery that the clear mass which escaped was a genuine hydatid.

No bad symptoms followed. She went out in about three weeks, with a cavity that felt to the finger exactly like the natural vagina; and I directed her to wear a boxwood plug, to keep it open.

I have been unable to get any accurate account of this patient since she left my care; but the prospect was not very promising.

[*To be continued.*]

TUBERCULAR MENINGITIS.

By William Curran, L.R.C.P.Edin., M.R.C.S., etc., Assistant-Surgeon Army Staff.

In connexion with the subject of tubercular meningitis, recently discussed and illustrated in the Journal by Dr. Hill of Bath, I find, on looking over the registers of the military hospital at this station, reports of two cases which have occurred within my own recollection, and which may, in abstract, prove interesting to those who, like myself, looking beyond the surface and making allowance for the operation of general causes and systemic relations, ascribe many transitional diseases to the force of sympathy and the influence of metastasis in the human frame. As, however, it is not my wish or intention to discuss or inquire into the relative share or influence of either of these somewhat questionable conditions in the production of this or any other disease, and premising that, if memory fails me not, I could bring to mind other instances of a similar complication, as observed by myself at Brompton and elsewhere, I now proceed to give in outline some prominent particulars of the two cases above referred to.

Case i. Sergeant Thos. McN. was readmitted on the 30th of October, complaining of intense aching and throbbing of the temples, diffused frontal pain, insomnia, and persistent headache. He had suffered more or less for the last four days; he felt his head sometimes splitting, and as if pressed in a vice; but said the pain had somewhat intermitted since his admission to hospital. He stated that he was not so much troubled with dizziness and flashing as previously. He suffered from a chronic irritable cough, of varying severity; his expectoration was rather scanty, but generally purulent, and occasionally tinged with blood; and, when he was last in hospital, percussion elicited a hard metallic note. The chest was found emaciated and receding; his breath was offensive; and the breathing was markedly harsh and defective, accompanied with diffused crackling on deep inspiration, especially on the left side, where also the voice-tone was distinctly bronchophonic under the clavicle in front and between the scapulæ on the same side posteriorly. These symptoms had rather increased than otherwise on his readmission; and cavernous gurgling, with progressive dulness and emaciation, gave evidence of the existence of a vomica in each lung. As, however, he was notoriously of very intemperate habits, and was reported to have almost lived on drink for the last few weeks, and as, besides, he was very fidgetty and restless, had a foul, yellowish, creamy tongue, a soft compressible pulse, and a stinking *beery* odour of breath, it was at first doubtful whether the exhaustion of protracted intemperance had not been modified or enhanced by his grave pulmonary disorder; and we were accordingly obliged to temporise, in accordance with the old familiar aphorism which was wont to be quoted by the late Dr. Paris, "Si methodum nescis abstine," to suspend all heroic measures, and to wait for symptoms. He was placed on a low unstimulating diet, with beef-tea and lime-juice; had cold applied to the head; and, after the bowels were freely moved with calomel and castor oil, a blister was applied to the neck, and he was ordered a mixture containing chlorate of potash, chloric æther, paregoric, and cardamoms.

Two days afterwards, the report adds:—"Worse this morning; passed a restless night; was delirious at times, and gropes about on the bedclothes for some imaginary object; he looks stupid and somnolent; is unable to articulate distinctly, or fix his thoughts on any particular subject, but does not appear to have lost the power or sensibility of his limbs; and the pupils, though staring in a state of unmeaning vacancy, are, however, quite regular, and obedient to the stimulus of light."

The cerebral mischief and implication being now recognised, mercurials were administered by the mouth and through the skin. Counterirritation was practised behind the ears and on the neck; leeches were placed on the temples; and the bowels were stimulated with terebinthinate enemata.

On the following day, he had passed his motions in bed; and the catheter was employed to relieve the bladder. He was constantly calling out to some comrade, or muttering incoherently; was either squeezing his penis, or picking at the bedclothes; and, when spoken to, could not be roused to consciousness, or induced to protrude his tongue. In this state he lingered for some days, the breathing meanwhile becoming more obstructed, bronchitic, and embarrassed; the pupils more glistening and vacant; the general weakness more prominent and progressive; and he sank quietly on the morning of the seventh day after his admission.

A *post mortem* examination, thirty-six hours after death, revealed some redness and thickness of the outer membranes, a large accumulation of cerebro-spinal and subarachnoid fluid, with considerable effusion into each ventricle, and dilatation of the foramina at the base of the brain. The right corpus callosum was of a dark muddy colour, and soft pultaceous consistence. The right hemisphere was indeed generally softer and less consistent than the left; the optic nerves were of a dark greyish colour, freely studded with pigmentary stains, and exhibiting on their upper surface numerous enlarged and tortuous vessels. The choroid plexus on the right side was thickened, opaque, and granular, having imbedded in its substance numerous small fibrinous lumps, which, with somewhat similar but smaller miliary granulations from the surface of the arachnoid, were examined with the microscope, and found to consist of ill defined roundish nucleated cells, a trace of oil, some epithelial scales, and much amorphous granular matter. Both lungs were extensively disorganised, being adherent to the sides of the chest, riddled with cavities, and almost entirely devoid of crepitant structure.

On view of the above, the notebook says: "Judging from the symptoms and the *post mortem* appearances, this was more a case of tubercular meningitis than of ebriositas; though the history of the case at first pointed to the latter complication, and his well known habits of intemperance and late irregularities seemed to confirm rather than disprove the suspicion of its existence."

Case ii. This case, though by no means so characteristic as the preceding, is, however, I believe, sufficiently unique and distinctive to warrant me in ascribing its issue to meningeal irritation, consequent on the transference or deposit of tubercular matter in the cerebral membranes. It occurred soon after my arrival at this station, and was but imperfectly reported at the time. I can, however, recall its leading features to mind; and, aided by the scanty notice and assistance of the register, can vouch for the general accuracy of the following details.

J. D. was admitted to hospital complaining of occipital pain, which he described as dull, aching, and continuous; giddiness in the head, singing noises, and great prostration, alternating with occasional faintness and tendency to deliquium. He had been very erratic and unsteady in his movements lately, and was noticed to halt and be oblivious on parade and in other dealings with his comrades. Though tolerably muscular and well nourished, he had for some time exhibited signs of pulmonary derangement, as evidenced by his short hacking cough, some yellowish ropy expectoration, and night-sweating. On examining his chest, I found some dulness and dry crackle at the left apex, subcrepitant rhonchus at the base posteriorly, and general absence of the respiratory rhythm on the same side.

When taken to hospital, he was found unable to move, stand upright, or otherwise maintain himself without assistance; the pupils were fixedly dilated, and almost insensible to light; there was some ptosis of the left lid; the sphincters had lost their contractility; he moved as if in pain, started involuntarily, and "talked all idly unto shapes of air". He, however, still retained some glimmering trace of consciousness, and could answer falteringly when spoken to in a loud voice, but soon relapsed into his original forgetfulness. His motions and general contour became jactitating and convulsed, his breathing more laboured and puffing; and, notwithstanding the use of a turpentine injection, the application of heat, friction, and stimulating poultices, and the exhibition of small and frequent doses of brandy, he had frequently recurring attacks of faintness and syncope, with cold perspiration, spasmodic twitchings, and pallor of face; and died convulsed soon afterwards.

Post Mortem Examination, thirty-six hours after death. The body was moderately plump and muscular, and comparatively free from cadaveric rigidity. There was no odour or trace of decomposition, and no perceptible discoloration or congestion about the face, neck, or scalp. On removing the latter, the cerebral membranes appeared bulging and congested; the tegumentary vessels were enlarged, tortuous, and superficially prominent from blood-engorgement; and there was a considerable amount of cerebro-spinal and subarachnoid fluid in the cavity of the skull. Both ventricles appeared unusually large, as if from fluid dilatation; there was a pinkish ruddiness of the cortical substance, and numerous puncta vasculosa in the centrum ovale. Several small wedge-shaped tubercles were found dotting the surface of the arachnoid, giving it a distinct character of roughness and inequality, and being especially prominent towards the base of the brain and cerebellum. The encephalic mass was otherwise apparently quite normal. The left lung was rather freely studded with grey tubercle, and there was a small circumscribed vomica at its very apex. The bronchial, mesenteric, and cervical glands were enlarged, and infiltrated with softened curdy matter resembling broken down tubercular substance or scrofulous *débris;* and the abdominal organs, so far as could be ascertained, were generally free from active disease.

Remarks. On glancing cursorily over the reports of these two cases, it will be found that, as noticed by Dr. Hill, the symptoms bore no very distinctive or definite relationship; and one would be at some loss in accounting for their sequence, or even in approximatively estimating their value by a reference to or comparison of the phenomena of their development, progress, or termination. Though somewhat obscured by the influence of protracted stimulation in the first case, they were otherwise certainly more characteristic and intensified than in the second, in which the outward appearances might be compared, on casual inspection, to those produced by or resulting from chronic encephalitis, cerebral abscess, or the presence of an entozoon. The pain in the head, the gastric irritation, the vomiting and prostration, the dead, dull, heavy, persistent sense of uneasiness and discomfort, as described by Dr. Brittan in connexion with a case of the last mentioned complication, were quite compatible with the feelings of my second patient; while, in some other respects, his sufferings and general appearance were not much at variance with those referred by Dr. Richardson to uræmia.

From these remarks, it will be easily inferred that the diagnosis of meningeal tuberculosis is during life to a certain extent uncertain and conjectural; and though, doubtless, persistent headache, with more or less paralysis and delirium, especially if the latter manifest itself by very wild and maniacal delusions, may, in a tuberculous patient, warrant a suspicion of its existence, and enable or justify us in taking measures accordingly, I yet fear that, in the present state of our knowledge, a physical examination alone will confirm or disprove the accuracy of our assumption. The presence of tubercular matter, and its recognition by the microscope, must even in death be our guide towards diagnosis; for, as will appear from the following words of Rokitansky—with which, as they entirely reflect my own ideas on the subject, I will close this paper—the presence of ventricular or subarachnoid fluid does not affect the question, or is rather obviously beside it, without the tests just referred to.

"It is an important question whether there are any acute effusions which are rapidly fatal, and whether it is possible to recognise them on the dead body as the cause, or as part of the cause, of that form of sudden death which is usually designated 'serous apoplexy'. That there are such acute effusions, which may quickly destroy life by paralysing the brain, can certainly, in the present state of our knowledge, not be denied; but the diagnosis of this mode of death is just as uncertain on the dead body as on the dying patient; for the serum which is found in the arachnoid sac may be a chronic accumulation which has existed there for a long time, just like that which is contained in the ventricles or in the tissues of the pia mater, or that which produces œdema of the brain itself."

These observations warrant, I think, the conclusion just enunciated, and justify me in assigning the death of these two men to the irritation of tubercular matter in the meninges of the brain.

Pembroke Dock, South Wales, December 1860.

OBSERVATIONS ON THE MORBID ANATOMY, PATHOLOGY, AND DETERMINING CAUSE OF EMPHYSEMA OF THE LUNGS.

By A. T. H. WATERS, M.R.C.P., Physician to the Liverpool Northern Hospital; Lecturer on Anatomy, Physiology, and Pathology, in the Liverpool Royal Infirmary School of Medicine.

[*Read before the Royal Medical and Chirurgical Society.*]

Part I.

The different kinds of Emphysema. Vesicular Emphysema; its various forms. Modes of Preparation of Lung Tissue for examination. Changes which take place in the Air-Sacs in the different Stages of the Disease. Condition of the Blood-Vessels; of the Bronchial Tubes. Is the Disease attended with any Degeneration of Tissue? Interlobular Emphysema.

[*Continued from p. 959.*]

The subsequent steps in the progress of the disease consist in a further distension of the air-sacs, an enlargement of their perforations, and a rupture of the fibres of which their walls are composed. As these results take place, the walls become more and more imperfect, and the openings in them coalesce. A further breaking down of the walls then occurs, so as to leave but very partial partitions between the cavities; and in the most advanced stages of the disease these partitions un-

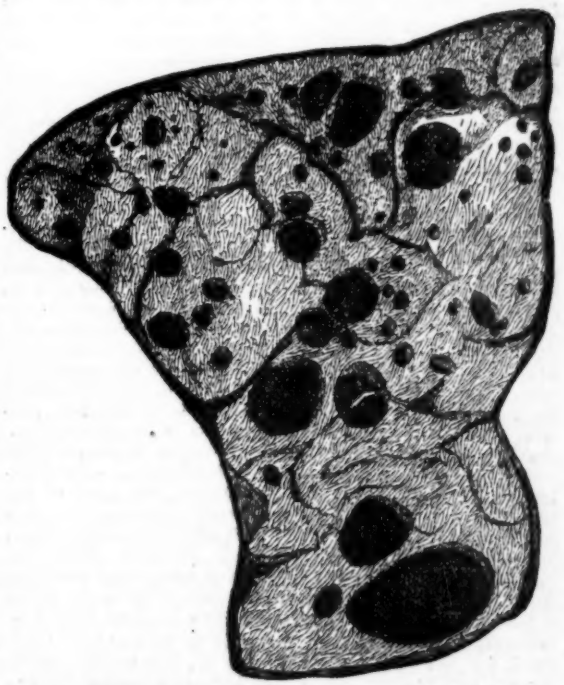

Fig. 10.—Taken from a portion of lung very emphysematous. It shows the appearance of the air-sacs in a dilated condition, with their partitions much ruptured, and full of large perforations. (Drawn by means of the camera lucida.) The black spots shew the perforations. The cavities had a diameter of 1-16th, 1-20th, and 1-27th of an inch.

dergo other changes, and are reduced to mere membranous shreds or thin fibrous cords, passing in various directions, traversing, in fact, the distended sacs, two or more of which, by the destruction of their walls, have united to form a single cavity. These cavities occasionally assume a large size, and project from the margin of the lung, forming appendages, and being connected with it merely by a stalk-like process. (See Figs. 10 and 11.)

These appendages differ much in form and volume. In the latter they vary from the size of a nut to that of a pigeon's egg; and sometimes they are even larger. As has been observed by Louis, their elongated and rounded form sometimes makes them resemble the swimming bladder of a fish. They will sometimes empty themselves from a single puncture; at others, two or more punctures are required before they will completely collapse. They present in their interior, cavities varying in

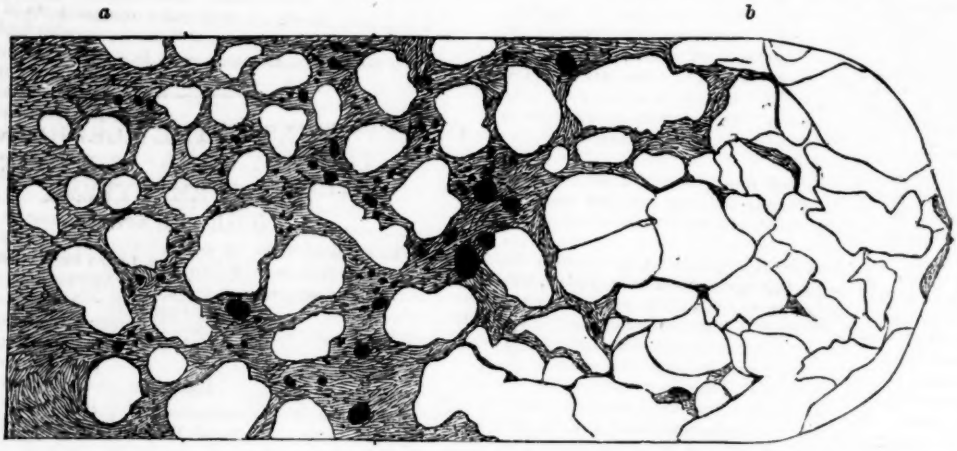

Fig. 11.—Shews the appearance of a piece of highly emphysematous lung, taken from the margin of the lung, where a distinct bulging or "vesicle" existed. The white spaces denote the openings of the divided air-sacs; the black spots, the perforations of their walls; and the lighter parts represent the walls themselves. At *a*, the lung-tissue is tolerably healthy, at *b*, the walls of the air-sacs are broken up, and the membranous shreds and septa alone remain. (Taken by means of the camera lucida, and magnified to one-half the linear dimensions of Figs. 5 and 6.)

size, and traversed at all angles by thin membranous shreds. At the distal extremity of the appendages these cavities are larger, and they diminish towards the end where the appendages join the lung.

If we examine the inner surface of the appendages I have just described, or of a portion of emphysematous lung which has reached an ordinary degree of development, we find abundant evidence that the cavities are formed by the dilated air-sacs. We recognise at once, under the microscope, the same appearance of the lining membrane—viz., its epithelial covering—as we find in the air-sacs in a condition of health.

I have met with one instance where the pleura was raised from the lung-substance, to a very considerable extent, forming a cavity as large as a small orange. The substance of the lung from which the pleura was thus stripped, was highly emphysematous, and an opening existed at one spot, through which the air had escaped, and found its way beneath the pleura.

Instances of this kind are, I believe, rare in adults. M. Guillot, in a paper published in the *Archives Générales* for 1853, has detailed a number of such cases in children, who had been for the most part the subjects of long continued pertussis, attended with severe fits of coughing. In these cases, the pleura was found, after death, raised from the surface in numerous parts of the lung; and, in some instances, there was emphysema of the cellular tissue of the mediastinum, and even of the neck. M. Guillot seems to me to have fully established the connection of the pathological condition of the lung just described, with, and its production by, severe fits of coughing.

I have observed an anatomical difference in preparations of different lungs, which I cannot satisfactorily account for. In some lungs in which the emphysema has been of the *lobular* kind, I have found the air-sacs distended to a very considerable extent, but I have observed few or no perforations; whilst in other lungs, and especially in those where the disease has been of the *lobar* character, I have found extensive perforation of the walls of the air-sacs with certainly not more, and in some instances less, dilatation than in those alluded to above. In all the cases of lobar emphysema which have come under my notice, I have found the walls of the air-sacs extensively perforated; whilst in some cases of lobular emphysema; this condition has not existed. These facts would seem to indicate that, in the cases where rupture takes place under a dilatation, which in others does not produce such rupture, there must be some degeneration which renders the tissue more liable to give way.

If we examine the condition of the blood-vessels in an emphysematous lung, we have evidence of the cause of its anæmic appearance. We find in the earlier stages of the disease when there is simply a dilatation of the lung tissue, that the capillaries of the pulmonary plexus are wider apart than in a state of health; the meshes formed by them are larger. As the walls become perforated, and the sacs further distended and broken, the capillaries become ruptured, and hence we have one cause of the hæmoptysis which occasionally attends the progress of the disease; although this symptom does not necessarily follow from the pathological condition just alluded to.

If we examine a piece of lung in a condition of extreme emphysema we observe a number of small blood-vessels taking their course in the membranous septa and shreds, which I have previously described as traversing the cavities; the vascularity of these parts is exceedingly slight, and but little, or no, respiratory function can be performed by them.

In examining the condition of the bronchial tubes in emphysematous lungs, I have found them dilated, especially in old standing cases. Where bronchitis has existed, the mucous membrane of the larger tubes has been red, injected, and somewhat thickened; but I have usually observed that the smaller tubes were pale, and exsanguine; although, in some instances I have found them filled with muco-purulent matter. I have not seen ulceration present in any case.

If the smaller bronchial tubes of two portions of the same lung be examined, the one portion being healthy, and the other emphysematous, the tubes of the former will be found of a darker colour than those of the latter. This results in part from the diminished vascularity of the pulmonary tissue in the emphysematous portion, as compared with that of the other; and in part from the same condition of the bronchial mucous membrane.

An alteration of tissue I have frequently observed in old cases of lobar emphysema is increased development of the circular fibres of the bronchial tubes. In the smaller tubes, the fibres become more distinct than in a state of health, and they are more readily recognisable.

A very important question in connection with emphysema, and one which demands the most serious attention of the pathologist is, whether the disease is preceded by, or attended with, any degeneration of tissue; for upon a recognition of the exact nature of the changes which the lung tissue undergoes, and which result in the loss of its healthy elasticity, must be based the means to be resorted to, to arrest the progress of the

degeneration (if there be any), to restore the lung substance to its healthy state, and thus prevent the further development of a disease, which admits of no cure when once established.

Mr. Rainey, in a specimen he examined, found "the pulmonary membrane studded with fatty matter," and he thought this deposit of fat preceded the formation of the perforations which take place in the disease. The observations of Mr. Rainey on this point have not been confirmed by subsequent inquirers, and the conclusion he arrived at cannot be considered in the light of an established fact.

I have examined with great care a number of emphysematous lungs, with the view of ascertaining the presence or absence in them of fatty matter, and although in one or two instances I have found evidence of it in the walls of the air-sacs, yet, as a general rule, I have found it absent. I have neither been able to discover its presence by the microscope, nor by heating a piece of lung tissue on paper, so as to get a stain from the dissolved fat.

The specimens I have examined, have been taken from lungs which were the seat of extensive, old-standing lobar emphysema, and from others in which disease of the lobular kind existed.

In my investigations on this point, I have examined pieces of lung, not only from the more diseased portions, but from those also in the contiguous parts, and from others where the lung tissue was quite healthy. With reference to the question of the existence of fatty matter, I have found no difference in any of these specimens; it was, as a rule, absent from all.

Dr. Jenner is of opinion that "the most frequent anatomical change in the lung," producing loss of elasticity of its tissue, "is fibrous degeneration, the consequence of the exudation of that variety of lymph which escapes from the capillaries when they are the seat of slight but long continued congestion."

I have examined, microscopically, several specimens of emphysematous lungs, with the view of ascertaining whether I could observe any difference in their elastic fibres, as compared with those of healthy lungs. My results are, at present, so imperfect, that I must refrain from giving them; contenting myself with merely expressing an opinion that, in many cases of emphysema, especially of the lobar kind, some degeneration of the pulmonary tissue does exist, into the nature of which, it behoves all pathologists carefully to inquire.

Interlobular Emphysema. This consists of an infiltration of air into the areolar tissue which exists between the various lobules. I have never seen it as an independent affection, but in almost every case where there has been extensive vesicular emphysema, I have found the interlobular kind existing to a greater or less extent. It is often very partial, and seems to have little tendency to spread. At other times (especially in cases of lobar vesicular emphysema) it is quite easy to pass the air from one lobule to another, so that it must traverse extensively the interlobular areolar tissue. From the communication of this tissue with that beneath the pleura, it is easy to see that the latter may become stripped from the lung by air which has first found its way between the lobules; and from its connection with the tissue surrounding the bronchial tubes and blood-vessels, and with that in the mediastinum, we can explain the occurrence of those cases in which emphysema of the cellular tissue of the neck has been produced by violent and long continued expiratory efforts.

[*To be continued.*]

REMARKS ON OBSTRUCTION OF THE BOWELS: WITH CASES.

By Edward Copeman, M.D., M.R.C.P., F.R.C.S., Physician to the Norfolk and Norwich Hospital.

[*Continued from page 957.*]

Case vii. *Fatal Obstipation from Impacted Gall-Stones.* My attendance was requested on September 3rd, 1858, by Mr. —, a farmer, 50 years of age, of plethoric habit and considerable bulk and strength. He was accustomed to high living, frequently taking malt liquor and other stimulants, but not to excess. A month ago he was attacked with severe pain in the right side, supposed to be from gall-stones, followed by jaundice. On Monday last, after recovering from his former attack, he was seized with pain in the body, resulting in complete obstruction of the bowels; and when I saw him this morning, he was constantly vomiting dark green matter; he had cold extremities, clammy perspirations, imperceptible pulse, and although perfectly sensible, was fast sinking. He died soon after I left him, and I was favoured with the following interesting report of his case, by my friend, Mr. ——, who regularly attended him.

"Poor H. — died at about one o'clock on Friday; at that time he asked for a draught of harvest beer, which he swallowed eagerly; immediately afterwards, severe vomiting took place, and he expired in the effort. You could hardly have reached the first station when this took place. I obtained leave for a *post mortem* examination and performed it yesterday, twenty-seven hours after death. Before describing the appearances, I will just remind you of the circumstances of the case. He was 50 years of age, a man of most powerful build, and of energetic and active habits, a very free liver, but not intemperate. During the fourteen years I have attended his family, I can remember no serious illness from which he has suffered; an attack of sciatica, which has recurred from time to time, in a mild form, having been the worst, until July 2nd of the present year, from which (although with rather a long interval of comparative health) we may date his last attack. On that day he was seized with the ordinary symptoms of gall-stones, the paroxysms however being unusually protracted and severe. I attended him until the 15th, when he was well enough to pursue his usual occupation, and to go long journeys, and I saw no more of him until Monday last, August 30th, when the symptoms returned with even greater severity. Vomiting was incessant from the commencement to his death, neither food nor medicine remaining in the stomach for more than an hour or two at the very longest. Great pain and excessive tenderness in the right hypochondrium, and subsequently in the right iliac region, with a sensation of "stoppage somewhere," distressed him until Wednesday, September 1st, when all pain and tenderness ceased, to return no more; and vomiting of dark green fluid, with failing pulse and powers remained. On Friday morning, September 3rd, as you will remember, we found him pulseless, with cold clammy extremities, and, in short, in a state of collapse. The bowels had refused to act in spite of the administration of large soap, turpentine, and castor oil enemata, and free doses of calomel and opium at first, and afterwards of calomel and colocynth; none of which, however, were retained a sufficient time to produce effect. The head remained perfectly clear until the last moment.

"Post Mortem Examination twenty-seven hours after death. Decomposition was advancing. The face and the upper part of the chest were greatly congested, of a dark purple colour and emphysematous. The body was loaded with fat. There was copious discharge of bloody fluid from the mouth and nares. The lungs were sound. The heart was rather large and flabby. Nothing else worthy of note was found. The abdomen was much distended and hard; a large quantity of offensive gas escaped when the cavity was opened. The stomach and intestines were enormously distended with air. The liver was very small. The stomach was apparently healthy. The duodenum was of a dark chocolate colour, both on its peritoneal and inner surface; its mucous membrane was broken down, and a perforation as large as a florin existed in the position of the mouth of the common bile duct. This tube, together with the entire gall-bladder, were completely gone and disorganised, their place being apparently supplied by condensed and dark connective tissue, which, however, presented no stain of bile, and which had (I suppose recently) become torn, and nearly entirely detached from the intestine. The cavity of the duodenum contained a gall-stone of about the size of a musket-bullet, of a cylindrical form, flattened at both extremities by attrition with other concretions, and weighing 84 grains; two more were found in the ileum, weighing respectively 64½ and 157 grains, the latter, also, being flattened at each end, cylindrical, and larger than a pigeon's egg; a fourth gall-stone, weighing 52 grains, was found loose in the abdomen. The liver was very small, not above half its usual size; its parenchyma was of a pale greenish-yellow hue; the gall-bladder was gone, as before stated. The ileo-colic valve was healthy, as also was the large intestine. The vermiform appendix contained a few pieces of old, hardened fæces, but was neither enlarged nor inflamed. The other organs were apparently healthy. The following, then, were the diseased appearances:—

"*Liver.* Parenchyma, pale yellowish-green; reduced to half its normal size.

"*Gall-bladder and Ducts* destroyed; their place being supplied by condensed and dark connective tissue which was torn from the duodenum.

"*Duodenum*, shewing a large perforation in the position of the entrance of the bile duct; dark chocolate colour without;

mucous membrane broken down, and containing a large gall-stone; two more gall-stones in the ileum, one near the ileo-colic valve weighing 157 grains. A fourth of smaller size loose in the abdomen. Vermiform appendix containing a few small pieces of hard fæces."

Case viii. *Fatal Constipation.* On April 29th, 1852, I visited a lady between fifty and sixty years of age, who had been, for many days, suffering from severe colic, constipation, foul tongue, and rapid pulse, for which she had been carefully treated by Mr. —. The above symptoms were still present, the abdomen was tumid, and the intestines appeared to be loaded. We ordered turpentine fomentations to the abdomen, an enema of turpentine and castor oil, and afterwards an opiate suppository. Under the idea that she might be suffering from gall-stones, which was favoured by her semi-jaundiced appearance, we directed large draughts of carbonate of soda in warm water, in the hope that it would either relieve sickness, which was constant, or, at all events, cause the vomiting to be less distressing.

April 30. The patient passed a more comfortable night; a little fæcal matter came away with the injection. The pain was much relieved, and vomiting less frequent. The pulse was 130 yesterday, 108 to-day. The tongue was a little cleaner. The injection was ordered to be repeated, with the addition of a pint of compound infusion of senna.

May 2. There had as yet been no relief from the bowels of a satisfactory nature; and to-day the tormina and vomiting had increased. I ordered a grain of opium every two hours, and another medicated injection.

May 3rd. She had some fæcal evacuation last night, and was easy under the influence of the opium. The colon was greatly distended. The enema was repeated, and the opium continued.

May 4th. The patient had a good relief last night, and the abdomen was much less distended; but a good deal of fæcal matter was still to be felt impacted above the sigmoid flexure of the colon. The remedies were continued.

For some days she went on well; a great deal of fæcal matter came away, and she got almost free from pain. But her general appearance did not improve; her pulse continued frequent and weak; her countenance and complexion indicated something more than ordinary disease, and she could take neither medicine nor nourishment without inconvenience. At length, she was suddenly attacked with almost constant vomiting of dark green fluid. This was somewhat relieved by creasote; but she became much exhausted, and died on June 20th.

I regret that an examination after death was not allowed, because it leaves us in doubt as to the cause of the fatal issue; but I am much inclined to think there must have been some cancerous or other malignant disease within the abdomen, from the peculiar colour of the complexion, and the inability to rally after the obstinate state of constipation had been overcome.

Case ix. *Constipation, leading to Impaction, Peritonitis, and Death.* I was summoned on August 31st, 1857, to an old lady, who had long been accustomed to neglect her bowels, so as to have relief but seldom except upon urgent necessity. I found her suffering from intestinal impaction, with commencing peritoneal inflammation. She had been carefully treated for more than a week, but had had no relief from the bowels, and was now in a very depressed condition. She had calomel and opium every four hours, and an enema of turpentine and castor oil admistered by means of O'Beirne's tube. On the following day large quantities of very offensive fæces were discharged, affording considerable relief to the general symptoms; but the bowels still appeared to contain a good deal. The pills were continued and the enema was repeated.

During the next few days the bowels continued to discharge large quantities of offensive fæcal matter, principally liquid, but she was unable to take sufficient nourishment, and gradually sank exhausted.

There was no *post mortem* examination; but we have every reason to believe that in this case the sole cause of the fatal mischief was the impaction induced by the constant habit of neglecting, except under great urgency, the natural evacuation of the bowels. The house in which she lived contained no water-closet; and the privy belonging to it being in rather an exposed situation, she never would go to it as long as, by any possibility, she could avoid it. In other respects she had for many years enjoyed a very good state of health.

[*To be continued.*]

Transactions of Branches.

READING BRANCH.

TRANSACTIONS OF THE READING PATHOLOGICAL SOCIETY: ANNUAL RETROSPECTIVE ADDRESS.

By Nathaniel Crisp, Esq., Swallowfield.

[*Concluded from page 960.*]

VI.—Obstetrics.

Hydatid Placenta. Mr. Harrinson exhibited a hydatid placenta, from a feeble cachectic woman, 32 years of age, in the middle of the fourth month of pregnancy. Seven weeks before, miscarriage occurred, profuse coloured discharge took place, which, during the last four days, had much increased. The fœtus was small; the placenta large, about four-fifths of it consisting of apoplectic clots and masses of blood in different stages of alteration. The remaining portion contained many cysts of various sizes, with narrow necks, and full of transparent fluid.

Hydatid Pregnancy. Mr. Walford presented a specimen of hydatid pregnancy; labour occurring in the fifth month, the subject being a primipara. No quickening had been felt. Slight hæmorrhage had existed off and on for three months, and, according to the patient's account, some hydatids had escaped with such discharge; labour occupied about twelve hours; pains were very severe; the woman convalesced well, with the exception of a slight attack of phlegmasia dolens.

Fibrous Tumour of Uterus. Mr. May laid before us a fibrous tumour of the uterus, removed by excision from a married lady, 50 years of age, who had never been pregnant. For two years prior to the operation, the catamenia had been very profuse, with watery mucous flow in the intervals. On only two occasions, some months apart, was there pain or bearing down; at times she suffered from apparently muscular pains about the shoulder; latterly some difficulty had been experienced in micturition, and defæcation was accompanied by a feeling as if something would protrude. Vaginal examination revealed a tumour, about the size of an orange, connected with the interior of the uterus by a pedicle about the diameter of the thumb. An examination had been made six months previously, a tumour was detected, but only presenting at the os, which was dilated to the size of a shilling, the posterior portion of the uterus being much enlarged. The vagina being narrow; the tumour high up and large; an attempt to reach it with a knife or scissors, or to strangulate it with Gooch's needle or the double cannula, was unsuccessful. Another trial with somewhat modified instruments was about to be made a few days after, but before commencing the operation a copious enema of warm water, thrown into the rectum and forcibly expelled, had the effect of protruding the tumour externally; the pedicle was then easily divided, and what little hæmorrhage occurred was restrained by plugging the vagina. The lady was soon convalescent, and on the ninth day after the operation scarcely any of the pedicle could be detected on an examination with the speculum. Mr. May gave his preference to excision of tumours of this kind instead of strangulation, and considered that hæmorrhage was easily controlled; he also drew attention to the benefit likely to be derived from the use of copious enemas before operating on such cases.

Dr. Wells also exhibited a specimen of this form of disease.

Obstetric Statistics. Mr. Harrinson read a very interesting paper on "Statistics of 1000 cases in Obstetrics." It has since been published, and is well worthy of attentive perusal.

Ulcerated Uterus. At one of our meetings some discussion took place regarding the danger likely to arise should labour occur with an ulcerated condition of the uterus.

Mr. May mentioned a very interesting and conclusive case in support of these views, and several members stated that their experience proved that should ulceration of the os coexist with pregnancy, cauterisation might be employed with decided benefit to the mother, and without danger to the fœtus. The benefit sometimes derived from dilating the cervix uteri in cases of sterility was referred to, Mr. Harrinson stating that he had treated several such cases successfully in this way.

Remarks. This is a brief summary of the cases and papers on obstetrical subjects which have been brought under our notice during the past year. Every one of us must be glad of any opportunity for adding to his stock of knowledge, on

this, one of, if not the most important branch of our profession, and more especially does this apply to those of us who live in the country, when frequently much difficulty exists in obtaining the friendly advice and assistance of a brother practitioner. Mr. Harrinson's "Statistics" are a fund of useful information, and you will allow me very briefly to refer to one or two points in his paper, which appear especially deserving of attention. In page 6 of his pamphlet, reference is made to the difference of opinion held regarding various points in obstetrical practice; have we not seen ample exemplification of this just lately in the flood of letters which has appeared in the Association Journal on supporting the perineum? Extremes certainly meet in the views held on this point, some advocating the use of a very high degree of mechanical force, others asserting that none whatever is to be applied. Can any certain rule be laid down? I think not. A certain amount of mechanical tact (if I may so term it) ought to be possessed by all of us, and this will be our guide as to the amount and nature of the support necessary to be given in each case. Mr. Harrinson agrees with Dr. Tyler Smith, that the dangers of obstetrical practice may be much reduced by careful attention to the disorders of the pregnant state; how vividly is this called to one's mind in cases of puerperal convulsions, dependent on albuminuria, unattended to until too late. The large share which a diseased placenta, or a syphilitic taint bears in causing the death of the fœtus, also proves how important such attention is. Fifteen lingering labours in 1000, appear to me a somewhat small average. The general health and circumstances of the mother ought to be noted in making such a calculation; a frame debilitated by poor living, or ill health, is not likely to expedite labour; but on the other hand, my own experience agrees with that of Mr. Harrinson, that labour is by no manner of means dangerous according to its duration; this is contrary to the ideas promulgated by Dr. Simpson.

It seems a somewhat curious circumstance, that out of ten twin cases, there should have been thrice the number of female children as of male, and that this was occasioned by five of the cases consisting of twins of the gentler sex. Is this anything more than a coincidence? Amongst 2000 cases of labour, arranged by Mr. Rigden, twenty-five twins occurred, and of these, in six cases both were males; in twelve both females; one only produced a male and female; this corresponds with Mr. Harrinson's experience.

Hæmorrhage. A subject fraught with peculiar interest occurred more frequently in multiparæ than in primiparæ, more especially in cases dependent on placenta prævia. Two placenta cases were in seventh pregnancies, and one in the ninth; the fact has been noticed that this position of the placenta is a rarer occurrence in first than subsequent labours. I have made a calculation from 232 placenta cases, narrated by various authors, in which the number of the pregnancy has been stated, and find that the average would be the fifth labour. Now according to the statistics before us (Mr. Harrinson's) there are nearly five times as many first labours as fifth labours which would make placenta prævia twenty-five times as common an event with a multipara as with a primipara. Can this be accounted for satisfactorily? one opinion is held by some, that a uterus which has once contained a fœtus, remains to a certain extent enlarged inferiorily, and that thus the ovum can spread its attachments lower down than it is able to do in a uterus impregnated for the first time. That the shape of the uterine cavity may bear its part in bringing about such a condition seems borne out to a certain extent by the fact that a woman, once the subject of placenta prævia, is liable to it again; still the same may be said as to twins, and we can hardly suppose that any peculiarity in the shape of the uterine cavity can account for their production. A large share of breech presentations, 22 in 1000, and a small number of arm cases, only 1 in 1000, have fallen to Mr. Harrinson's lot. Mr. Rigden's statistics of 2000 cases give a different result, only eighteen breech cases, whilst five arm presentations were met with. For many other interesting points, the paper itself must be studied, fully deserving as it does an attentive perusal.

The cases of fibrous tumours of the uterus are of interest as involving the question as to the best mode of removing them, whether by ligature, the *écraseur*, or the knife. Mr. May's experience, and the case he brought forward, favour the latter mode of operating. The dangers to be avoided whichever method is adopted, are hæmorrhage and subsequent inflammation. By the use of the *écraseur* or ligature, the vessels are blocked up or closed as the separation of the tumour goes on; the most vascular part of its growth being its external coat, a ligature properly applied, prior to the use of the knife, would easily control any bleeding, should it occur, the operation is quickly terminated, is not painful and far more comfortable to the patient's feelings than one prolonged from day to day, to say nothing of the unpleasant if not ill effects likely to arise from a decomposing fœtid mass lying for a more or less lengthened period in the vagina. Whichever operation is selected, care must be taken to avoid any additional risk from the catamenial period occurring shortly after its performance. A few weeks since, a very interesting report was given by Dr. Swayne, in the British Medical Journal, of the spontaneous expulsion of a fibrous tumour of the uterus, about three weeks after delivery, a rare and fortunate termination.

Mr. Walford's case of hydatid pregnancy occurred, as is generally the case, in a primipara. I am not aware of any explanation why such an affection is far more common with primiparæ than multiparæ, but so it is. It seems a pretty well established point, that this condition results from a morbid state of the chorion, the primary cysts originating from its villi, and others springing in due course from these, hydatid cysts having, as we know, a remarkable power of reproduction.

VII.—Varia.

Malformation. Mr. Walford exhibited the body of a malformed fœtus. Evisceration had to be performed before delivery could be effected. The enormous size of the abdomen, which prevented delivery, was due to a large sac of fluid occupying the whole of the abdominal space, but situated in front of the viscera, apparently between the abdominal muscles and peritoneum.

Mr. George May considered that this sac was the result of the bladder being in an undeveloped state; the urine not passing through into the liquor amnii, but escaping by an aperture from the bladder, and forming a cavity between the muscles and peritoneum, until it reached the point whence the umbilical vessels are reflected.

Malformed Fœtus. The pelvis and lower extremities, or rather extremity, of a malformed fœtus were presented by myself. In this case the two femora, as well as the tibiæ, were united into single bones; no external organs of generation existed, and no foot. The rectum terminated in a *cul de sac*; not a vestige of bladder existed.

Disinfectants. Attention was drawn by Mr. George May to different kinds of disinfecting ingredients, and some discussion ensued as to their relative value.

Hereditary Ptosis. Mr. Harrinson gave particulars of a very interesting case of hereditary and congenital ptosis. The subject was a married man, with one child also so affected, he himself being one of twelve children, four of whom, two males and two females, laboured under a similar affection, the same condition had also existed in his grandfather.

VIII.—Concluding Remarks.

This, gentlemen, is a short survey of what has engaged our attention during the past year. One and all of the subjects glanced at possess many points of interest; some more particularly than others. A somewhat dark aspect is presented by a large class of them, in one of which the dread enemy insidiously but certainly makes his approach through the coagulating blood, thus sapping the very foundations of life, alike attacking the old and debilitated, the young and robust, terminating life unexpectedly, as well after long and lingering disease, as during acute and sudden illnesses, and even sometimes by its symptoms leading to a false hope of speedy recovery, alas, as futile as delusive. The disorder once established, no hopes of cure exist to cheer us in our efforts to prolong life; our only consolation ought to be, that having neglected no opportunity of gaining knowledge, we have done our best. In another class, death no less certain, occurs in the most horrible and painful manner. The whole frame convulsed by violent spasms, the mental faculties generally perfect, the unfortunate patient lives for a longer or shorter period, each succeeding paroxysm more violent in its nature, only increasing his dread and fright at the agony he has to endure; here also we must stand by, content to hope that life may be spared, and that some of our remedies may alleviate, but too often disappointment is our only reward. In another class, chronic death (if I may so term it) invades the frame. For weeks or months we watch its approach, we use all our resources to repulse the enemy without effect; time is allowed us to give full scope to our knowledge, our adversary at times seeming to taunt us with vain hopes that we have arrested his progress only to return again with fresh vigour, and at last our patient sinks exhausted, but little outward sign ex-

isting to account for such an end. Lastly, in still another class, a more foreign element comes into play, special germs of disease are planted in our frames, and spring up in some organ or another, invading its structure and thence implicating our whole system, we shortly die. All these forms of disease present a peculiarly dark and cheerless aspect. But the brightest day sometimes succeeds the darkest night; and although as yet we are not in possession of sufficient knowledge as to the nature or cure of these various maladies, still let the hope that the day may arrive, when more insight into them will be acquired, and thence remedial measures be more efficaciously applied, cheer us on. Each of us has a daily duty of paramount importance to perform, namely, in some way or other to increase our stock of knowledge; some may do so in one way, some in another. On the shoulders of some of us the burden of practical work is heavily imposed, whilst others apply themselves more ardently to theoretical knowledge; to whichever class we belong, let us not underrate the efforts of the other for the benefit of suffering humanity, it is but little we can do, but let that little be zealously performed. Societies of the kind to which we belong are one and a very useful means of increasing our knowledge. Here we meet together and discuss any points of interest or questions of difficulty which may have occurred to us; expressions of opinion are given more freely than if they were to be published for all to pass their comments on; facts are mentioned which might not be thought of sufficient value to be placed in print, but named in connexion with any subject under debate are often of great value. A wrong view, if taken, is corrected by some one or other without fear of offence, and much less rancour occurs than is often the case in paper correspondence. The younger members benefit by the advice and experience of the older, and ought to feel much indebted to them for their support and interest in such societies. A man who has not strength of mind enough to form a decided opinion ought to be despised; and in no way can such decision be gained more readily than by regularly attending meetings of this character, and not being afraid of exposing our ignorance on any particular point. Diagnosis requires a certain amount of self-confidence, how can we gain such, if we are afraid of giving utterance to our thoughts in the presence of others? What decision we arrive at regarding any case may only be known to ourselves, but must be nearly worthless if we should be afraid to state it publicly. A conscientious man must have good reasons for forming a decision, and such being made, is not afraid of expressing it. If, by societies of this nature, we gain knowledge, and the power of imparting such, surely they tend to promote *esprit de corps*; a bond of union is formed between many of us, who otherwise would have no chance of meeting one another. We can see faults without quarrelling with them, remembering that self-pride may blind us to our own errors. Such are some of the benefits we may hope to derive from associating with the Reading Pathological Society; and on reviewing the various subjects, brought under notice during the past year, have no cause to complain of any lack of matter of sufficient importance to deeply engage our attention; but some of us ought to remember that a somewhat unequal share of work has been borne by a few members; this ought not to be allowed. Whilst our thanks are due to these gentleman, let another year produce more fruit, not less I hope, from those who have done so much during the past year, but a larger amount from those who have, I trust, been only lying on their oars.

M. Ricord. It is intended to give a banquet on Thursday next, the 20th instant, to this eminent French surgeon, on the occasion of his retirement from hospital duties.

Bequest. The late M. Lassere, *officier de santé* at Verdun, has left to the Toulouse School of Medicine the sum of 9000 *francs* (£360), of which the interest is to be presented as a prize to the student who, after three years consecutive study in the school, shall have passed the best examination. The prize for 1860 has been awarded to a M. Burgalat.

Royal Institution. Dr. H. Bence Jones has been appointed Secretary to the Royal Institution, in the room of the Reverend John Badow, who has retired from office.

Pathological Society of Ireland. The subject selected for the gold medal of the Pathological Society of Ireland, to be awarded at the close of the ensuing session, is "The Diagnosis and Pathology of Diseases of the Spermatic Cord and of the Testicle and its Coverings."

LETTERS AND COMMUNICATIONS.

Letters or communications for the Journal should be addressed to Dr. Wynter, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the Journal, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

British Medical Journal.

SATURDAY, DECEMBER 15th, 1860.

THE HYGIENE OF SURGICAL PATIENTS.

British practitioners may be justly proud of the improvements which have been effected in the treatment of patients suffering from the effect of injury or operation, so far as pure medical and surgical management is concerned. The pledgets, compresses, plasters, bandages, and woollen caps over stumps, which were the order of the day in the time of Cheselden and Le Dran, and for long afterwards, have gradually been reduced to such simple means as are merely necessary for mechanical support; while, as regards local and medicinal means, nature has been recognised as being more likely to follow the wished for course when not treated in an absurdly capricious manner, by first spurring her for not moving fast enough, and then perhaps roughly pulling her in for going ahead too rapidly. *Pro tanto*, our surgical patients have gained benefit: yet the mortality among them remains greater than it ought to be—and why? Simply from want of attention to some of the most ordinary requirements—from neglect of hygienic conditions. We still have, in fact, in many of our hospitals, the state of things that was described by Pringle a century ago—less in degree, it is true, but still to too great an extent.

"The last source (of impure air) is from hospitals, barracks, transport ships, and, in a word, from every crowded place, where the air is so pent up, as not only to lose part of its vital principle by frequent respiration, but it is also liable to be corrupted by perspirable matter, which, as it is the most volatile part of the humours, is also the most putrescent."

It cannot be denied, that an undue number of surgical patients perish in our hospitals from simple want of attention to ordinary hygienic rules, especially such as relate to the removal of noxious emanations, and the furnishing of a proper supply of breathable air. To this important subject, Mr. Roberton of Manchester has recently called attention, in a paper read before the Statistical Society of that city, and published by him in the form of a pamphlet. His special object is to point out what is required in the way of hospital accommodation in the county of Lancashire, where he finds that deaths and accidents from violence far exceed, both absolutely and relatively, those in any other locality. The accommodation, both in Liverpool and in Manchester, he holds to be both defective and faulty. But, before proceeding with this subject, he takes into consideration another no less important matter—the treatment of a person who has suffered an accident, before he comes under the hands of the surgeon.

When the celebrated surgeon, Percival Pott, was once thrown from his carriage and broke his leg, he, to the great amazement of those around him, hit right and left with his cane at

all who attempted to raise him, and would not allow this to be done until a door had been procured. Well he knew the danger which a man who has suffered an accident is liable to undergo at the hands of those who—with the kindest intentions, no doubt—undertake his conveyance to a surgeon or to a hospital; and he did not fail to insist on this in his *Treatise on Fractures and Dislocations.* Yet, in the present day, patients with severe accidents are even taken to such an institution as the Manchester Infirmary in cabs; and not in the country towns alone, but in London also, is this absurd practice, or some modification of it, in vogue. From such treatment, what can be expected but the conditions thus graphically described by Mr. Roberton?

"A bricksetter falling from a scaffold lights on a stone with his right knee; he is lifted and carried hurriedly to the nearest surgeon, who, perceiving that there is serious injury, orders him to the Infirmary, whither he is taken in a cab. From the cab he is laid on slings and borne to the ward. On removing his clothes, it is found that the thigh-bone is fractured, and that the broken end of the shaft protrudes through the skin above the knee. Here is a grave casualty—a compound fracture of the thigh. The fracture was doubtless the effect of the fall; but when did the bone pierce the skin? Was it from the fall, or did it occur in the rough manner of handling and carrying to the house of the surgeon, and thence by cab to the hospital. Who can tell? and *doubt* in such cases is full of import."

Truly full of import. How many limbs, not to say lives, have there not been sacrificed by neglect of simple mechanical facts and common sense! Yet it is never too late to mend; and Mr. Roberton makes some suggestions for the future prevention of disasters of this kind, which appear well calculated to serve the end in view. He suggests that, in every populous community, there ought to be—

"1. Surgeons in suitable localities, possessed of a stock of splints, bandages, pillows, etc., whose duty it is to obey every call to succour the injured.

"2. Printed instructions put into circulation by the authorities, with regard to what persons ought to do who are near to or who are witnesses of any serious accident.

"3. *Ambulances*, held in readiness for the immediate transit of persons who have met with severe injuries—the slings in common use, and other modes of conveyance, being more or less inconvenient or objectionable."

But, after all, the mortality arising from injudicious handling of the patient at first can be nothing in comparison of that which is produced by a deviation from the rules of hygiene during his treatment in hospital. For, in private practice, the effects of injury or of operation are, as a rule, recovered from; and, when an untoward event happens, it is quite as frequently from some unfavourable constitutional condition of the patient as from any other cause. To the mischievous effects of bad hospital arrangement, Mr. Roberton calls special attention; and he is not sparing in his denunciation of several of our provincial hospitals, and of the Manchester Royal Infirmary in particular, as places calculated to place the surgical patient in the most unfavourable position, not only as regards his life, but also as regards the speediness and the stability of his recovery. The Manchester Royal Infirmary is, according to his account, extremely defective in construction and badly ventilated; and the effect of this is the more marked, inasmuch as that institution receives a very large relative number of accidents—of cases of the kind which,

"Without good management, taint the atmosphere of even the best constructed wards, and which soon render ill constructed wards so many dens of death; places very convenient, it may be, for the *deposit* of the hurt, but whence too small a proportion emerge with life, or, if alive, not always in a state to satisfy the claims of humanity."

Our modern hospitals, indeed, as Mr. Roberton shows, bear still too great a resemblance in their effects on surgical patients to those haunts of death, the military hospitals, described by Pringle; and, although there have from time to time been surgeons who have insisted on the necessity of attention to common hygienic conditions, still the subject is far from receiving the practical attention which it demands. Sometimes, indeed, an epidemic of erysipelas or of sloughing phagedæna will break out, and ravage a ward; and then the alarm is given and a retreat—too late for many—is beaten. The ward is closed; and, after a time, is reopened—with, perhaps, the floor well cleansed and the walls whitewashed, but in all other circumstances the same as before.

We want more than this mere allowing the enemy to gain possession and then retreating until he has departed—we want a system which shall leave him the fewest possible number of unguarded points for his entrance. Mr. Roberton is for taking very decisive measures.

"The altered circumstances of industrial life—I refer to the continually increasing use of mechanical appliances in most kinds of labour—considered in connection with the recent advance in sanitary science, suggests the expediency—rather, I should say, the absolute necessity, on the ground of mercy—of pulling down all our unwholesome hospitals, both in London and in the provinces, and rebuilding them on proper sites, and in accordance with right principles of construction. For, assuredly, few will now maintain that, if compound fractures, amputations, the excision of tendons, lacerated wounds, burns, and scalds, are found not to get well in a hospital as speedily as they do when treated in a good private dwelling house, such hospital is other than a public evil—a place in which the most deplorable sufferings are inflicted on the injured, and where many valuable lives, often those of the skilled class of labourers, are needlessly sacrificed."

Of course, a somewhat formidable objection may be raised to the summary proceeding recommended by Mr. Roberton—the expense. But it is an objection which may be met both on the grounds of humanity and of interest. Why erect—why support—hospitals of a construction which can be shown to defeat the very ends which the benevolent public, and the no less benevolent surgeon, have in view? It were better far to locate the patients in tents or in wooden huts. As to the question of interest, every life sacrificed or impaired through the insalubrity of hospitals, is a positive loss in money value: and it is a blind economy which can persist in the maintenance of hospitals where the chances are strong that the unfortunate victims of accident who enter them may be either entirely removed by death, or may emerge in such a miserable state as to become, not sources of help and profit to their employers, but actual burdens on the community.

We trust that the attention of hospital surgeons and of hospital governors and committees will be aroused. Mr. Roberton has done his duty in so forcibly calling attention to a glaring defect in the City, in which he is a resident: and we are sure, with him, that there are no men who would more readily, for the sake of humanity and the honour of surgery, adopt means

to remedy the evils which he has pointed out than the surgeons of the Manchester Royal Infirmary, and of other institutions on the hygienic conditions of which he has animadverted. But the facts of the case require to be driven well home into the public mind.

THE WEEK.

The Medical Registrar, Dr. Hawkins, writes to us in reference to the case of Ellis *versus* Kelly, on which we made the following remarks last week:—"Whilst the lawyers are thus coming to the rescue of the unqualified practitioners on the one hand, we regret to see that the Medical Council is pressing with unnecessary severity on a duly qualified practitioner. The case of Ellis *versus* Kelly proves that we can be far more severe towards one of ourselves than the magistrates are against the most arrant impostors." Dr. Hawkins assures us that the Medical Council had nothing to do with the prosecution in the case. He also states that the prosecutor, Ellis, is not a person registered under the Medical Act, nor is he known to the Registrar to be connected with the medical profession.

A large body of our profession is anxious to know what the London College of Physicians is doing respecting the third class of practitioners, which they have been so long about the making of. We believe, that the College is as determined as ever it has been since it undertook the difficult task to carry out the scheme; and that it is doing all it can to attain the desired end. Whether the scheme will ever be successful depends much, if we are rightly informed, upon Apothecaries' Hall. We will take care to give our readers due information on the subject, should anything definite transpire.

Association Intelligence.

REPORT OF SPECIAL MEETING OF COMMITTEE OF COUNCIL.

Held in Birmingham, on Tuesday, the 4th instant.

Present:—Sir Charles Hastings (in the Chair); Mr. Bartleet; Dr. Bryan; Mr. Cartwright; Mr. Fowler; Dr. Henry; Mr. Husband; Mr. Ellis Jones; Dr. H. Munroe; Mr. Norman; Dr. Richardson; Mr. Southam; Dr. A. T. H. Waters; Mr. Watkin Williams; Mr. S. Wood; and Dr. P. H. Williams.

The following Memorials, addressed to the Committee, were read:—

Memorial to the President and Council of the British Medical Association.

We, the undersigned, members of the Association, beg to express to the Council our regret at the proposed removal of Dr. Wynter from his post as editor of the Journal, and especially at the steps by which, as we understand, a vacancy in the editorship of the Journal has been occasioned.

During the period in which Dr. Wynter has managed the Journal, the Association has steadily increased in numbers and improved in financial position; and at each annual meeting a vote of thanks has been awarded to him. At the annual meeting held in August last, at Torquay, this vote also testified to the improvement which had taken place in the Journal. Since he became editor the Association has been remarkably free from angry discussion and agitation, a fact in itself a testimony to the tact and discretion he has uniformly displayed.

We consider the Journal of vital importance to the interests of the Association, and, as a consequence, that its editor should be one of its highest and most responsible officers. It appears to us to be a misfortune that the constitution of the Association should permit the small number of gentlemen forming a quorum of the Committee of Council to dismiss the editor without either consulting the General Council or taking the sense of the Association.

According to the laws of the Association, the Journal is established as a means of intercommunication between its different members. It is, and must be, a reflection of the condition of the Association, as regards polity, science, and practice. A great portion of its space being devoted to the publication of papers read at its Branch and General Meetings, it is unreasonable to expect it, with limited funds, to become the competitor of journals like the *Lancet* and *Medical Times and Gazette*, which were in existence long before the Journal of the Association became a weekly publication, and upon which an enormous outlay of capital has been made to bring them to their present efficiency. In saying this, we would contend that the Journal holds a position not inferior to that of any other, but of an altogether different character.

We would deprecate the constant and, as it appears to us, injurious tendency, to discuss the merits of the Journal in its own pages, and the restless desire to change its details and management. Nothing is more necessary to success than permanency in its arrangements, as far as this is possible. What would be thought of the *Times*, or any other journal, if it constantly disseminated attacks upon its own authority and organisation? Such a state of things would necessarily offer the condition of a house divided against itself.

Under these circumstances, we would respectfully suggest that the resolution of the majority of the Committee of Council in regard to the editorship of the Journal should, in the interests of the Association, be re-considered by the Council at large.

James Clark.	T. W. Nunn.
J. Ranald Martin.	Edward H. Sieveking.
W. Tyler Smith.	Mitchell Henry.
Francis Sibson.	John Erichsen.
Forbes B. Winslow.	John Hatton.
Richard Quain.	W. Bowman.
W. J. Little.	Joseph Hodgson.
C. J. B. Williams.	William Coulson.

Memorial from Hull.

Hull, December 1st, 1860.

The undersigned members of the British Medical Association earnestly appeal to the Committee of Council not to make a permanent appointment of a new Editor of the British Medical Journal, until the members have had an opportunity of expressing their opinion as to the form and frequency of the publications of the Association.

Henry Cooper, M.D., F.R.C.P.	Thomas Sandwith (Beverley)	By authority. J. D.
Henry Carnley, M.B.Lond.	Thomas Hobson (Kirk Ella)	
Owen Daly.		
John Dix.	Samuel Watson (Cottingham)	
Robert Leadam Sleight.		
J. A. Locking.	Robert Hardey (Hull)	
Robert M. Craven.	James Dossor (Hull)	
John P. Bell.	J. F. Holden (Hull)	
	W. J. Lunn (Hull)	
	Henry Gibson (Hull)	

Resolved—That this Committee, having duly considered the above Memorials, beg, in reply, respectfully to state—

1. That the Laws of the Association leave to the Committee the entire management of the Journal; and that Dr. Wynter was elected Editor by the Committee in accordance with those Laws.

2. That the Committee of Council did not remove Dr. Wynter without due consideration, and previous intimation to him (in March last) that the Journal must be conducted on a different principle from that which he had hitherto adopted.

3. That the Committee feel that they are acting in accordance with their duties and with the general wishes of the Association, so far as those wishes expressed by members in different parts of the kingdom can be understood, by proceeding to the election of a new Editor.

Dr. Markham, of London, was elected Editor of the Journal after the 31st of the present month.

Charles Hastings.

Philip H. Williams, M.D., *General Secretary.*

Worcester, December 8th, 1860.

FOURTH LIST OF MEMBERS

WHO HAVE PAID THEIR SUBSCRIPTIONS FOR 1860.

The Third List was published in the Journal for May 19th.

BEDFORDSHIRE.
Hubert, W. A., Esq., Markyate-street

BERKSHIRE.
Crisp, N., Esq., Swallowfield
Moxhay, W. W., Esq., Reading
Sheppard, H. H., Esq., Sonning
Vines, C., Esq., Reading
Waldron, H., Esq., Theale
Ward, T. O., M.D., Winkfield
Wells, E., M.D., Reading

BUCKINGHAMSHIRE.
Daniell, E., Esq., Newport Pagnell
Grindon, G. H., Esq., Olney
Mackay, A. D., M.D., Stony Stratford

CAMBRIDGESHIRE.
Clapham, J., Esq., Thorney
Daniell, C. P., Esq., Swavesey
Farrar, C., M.D., Chatteris
Fawsett, F., Esq., Wisbeach
Fisher, W. W., M.D., Cambridge
Gray, F. C., Esq., Melbourn
Haviland, H. J., M.D., Cambridge
Helm, G., Esq., Cambridge
Newham, J., Esq., Doddington
O'Connor, T., Esq., March
Pinchard, B., M.D., Cottenham
Wallis, G., Esq., Cambridge
Wright, H., Esq., March

CHESHIRE.
Davies, T., M.D., Chester
Godden, J., Esq., Birkenhead
Harrison, John, Esq., Chester
Leah, T. C., Esq., Hyde
Stolterfoth, S., M.R.C.P., Chester
Vaudrey, W. C., Esq., Bredbury

CORNWALL.
Barham, C., M.D., Truro
Gaved, A., Esq., Bodmin
Kerswill, R. W. P., Esq., St. Germain's
King, D. H., Esq., Stratton
Lanyon, E., Esq., Camborne
Leverton, H. S., Esq., Truro
Pattison, W. T. A., Esq., Fowey
Sellors, J. M., M.B., Calstock
Thompson, D., Esq., Launceston
Williams, J., Esq., Helston

DERBYSHIRE.
Cantrell, W., Esq., Wirksworth
Cope, G. A., Esq., Etwall
Evans, D., Esq., Belper
Hart, G. C. B., Esq., Chesterfield
Hewgill, A., M.D., Repton
Jones, J., Esq., Derby
Norman, G. R., Esq., Ilkestone
Robertson, W. H., M.D., Buxton
Tasker, R. T., Esq., Melbourne
Thorpe, G. B., Esq., Staveley
Wade, H. T., Esq., Derby
Ward, J. D., Esq., Bolsover

DEVONSHIRE.
Appleton, H., Esq., St. Mary Church
Bartlett, J. B., Esq., Teignmouth
Black, G., M.D., Torquay
Bryden, R., Esq., Ufculme
Bucknill, J. C., M.D., Exminster
Budd, S., M.D., Exeter
Burrough, R. F., Esq., Dartmouth
Chilcote, W. E., Esq., Broadhempston
Deans, W., Esq., Sandford
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Reports of Societies.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, DECEMBER 3RD, 1860.

B. G. BABINGTON, M.D., F.R.S., President, in the Chair.

NOTES ON THE EPIDEMY OF CHOLERA MORBUS AT THE ISLAND OF ST. JAGO, CAPE DE VERDE, IN 1856. BY DR. HOPFFERS, SURGEON OF THE SECOND CLASS ON THE STAFF OF CAPE VERDE SANITARY DEPARTMENT.

[*Read by* DR. MCWILLIAM.]

THE author commenced by stating that when the adjoining islands of the group, St. Vincent, St. Antonio, and St. Nicholas, were invaded by cholera, the disease prevailed chiefly in the principal towns or seaports; but that at St. Jago the chief towns were scarcely assailed; and that the seacoasts, which are generally the localities where cholera first manifests itself, were there the least subjected to its ravages.

In the month of August 1856, cholera broke out at the island of St. Vincent, and it was supposed to have been introduced thither by an English steamer from Madeira. In September, the same disease showed itself in the islands of St. Nicholas and St. Antonio, into the latter of which, according to Surgeon Almerdac, it was imported. Much alarm was excited in all the islands invaded by the scourge, and fugitives from them fled in all directions. A vessel with forty persons, some of them suffering from the disorder, arrived at St. Jago in September, and four deaths took place while she was undergoing quarantine. After the lapse of five days without any fresh case, the passengers and crew were landed on an islet half a mile from the mainland, and, after some days, were brought to St. Jago. Although neither any of those from the ship nor of those in whose houses they lodged were attacked by the disease, the alarm throughout the island was great, and all looked forward with anxiety to some coming disaster.

Dr. Hopffers, on arriving from the coast of Guinea on August 31st, was informed that the season had been unusually sickly, and that the principal ailment had been diarrhœa. Cases of dysentery had also been prevalent. The seasons had been irregular, and famine had existed in some parts of the island for nearly two years.

The first case of cholera, or, as it was called, "the St. Vincent sickness", at St. Jago, occurred on the 3rd of October, and it terminated fatally in eighteen hours. Another case fell ill on the 7th, and a third on the 12th of the month; both also proved fatal. From this period, the disease extended in Domingos, Picos, San Miguel, San Catharina, and other districts in the interior of the island, where Dr. Hopffers was incessantly and most usefully employed in alleviating the prevalent distress.

From Dr. Hopffers' observations, at appeared that the disease at St. Jago always followed the line of communication; that it attacked mainly low, damp, and marshy places, but that it sometimes also visited high and well ventilated spots; and that the blacks were its favourite victims.

Dr. Hopffers confessed his inability to trace the origin of the disease in the island to any cause; but his experience led him from being a non-contagionist to believe that cholera was communicable from person to person.

The paper contained a topographical description of the districts invaded, and concluded with a statistical account of the cases treated by Dr. Hopffers; viz.: Males, 402; females, 433; total, 835. Deaths, 265; of whom were, males 129, females 136. The ages of the attacked were as follows, viz.:

Children of 8 years and under	154
Do. between 8 and 12 years	110
Persons between 12 and 20 years	136
" " 20 and 50 years	153
" " 50 and 65 years	167
" of 65 and upwards	114

The ages of the fatal cases were:

Children of 12 years and under	84
Persons between 12 and 20 years	45
" " 20 and 50 years	17
" " 50 and 65 years	53
" of 65 and upwards	66

A discussion followed, in which Dr. Milroy, Mr. Radcliffe, Dr. Babington, Mr. Hunt, and Dr. McWilliam, took part.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 5TH, 1860.

TYLER SMITH, M.D., Vice-President, in the Chair.

THIS being the last meeting of the second session, the following gentlemen were appointed to audit the accounts for the year 1860: Dr. Braxton Hicks and Mr. J. T. Mitchell, F.R.C.S.

LARGE COLLOID TUMOUR OF THE OVARY. BY T. H. TANNER, M.D.

This tumour, which weighed upwards of 8 lbs. avoirdupois, was removed from a patient of Dr. Robert Fowler. The woman was thirty years of age, and was doing very well, eleven days having elapsed since the time Dr. Tanner operated. The operation was employed as a last resource, since the patient was not only suffering from the tumour, but also from ascites produced by it. Five days before the performance of ovariotomy tapping was resorted to, and fourteen pints of ascitic fluid were withdrawn; yet at the operation it was found that about five pints of fluid had been again secreted. After applying ligatures to the pedicle, the tumour, instead of the pedicle, was cut through, and a portion of about the size of a small hand was left attached, and retained outside the abdomen. By this proceeding the use of the clamp was rendered unnecessary, while all risk of hæmorrhage was avoided. The latter point was important, since bleeding from the pedicle had been the cause of death in 16 per cent. of the fatal cases. The edges of the wound were carefully brought together with twine sutures; these latter not being passed through the peritoneum.

Mr. SPENCER WELLS had attached the greatest possible importance to the practice of passing the metallic sutures or hare-lip pins through the peritoneal edges of the wound. He had been led to originate this practice by observing the inner aspect of the wound in the first fatal case of ovariotomy which had occurred in his practice. The sutures had been passed through integuments and muscle, but not through the peritoneum; and the consequence was that a raw surface of considerable breadth was only partially protected from the general peritoneal cavity by a portion of intestine, which was already adhering to it, although the patient died the day after the operation. Had she lived longer, there could be no doubt that pus or other secretions from the wounded surface would have been poured into the cavity of the peritoneum. Struck by this observation, he (Mr. Wells) made a number of experiments, in concert with Dr. Richardson (who narcotised the animals by puff-ball smoke or chloroform), upon guinea-pigs, rabbits, and dogs, opening the peritoneum and closing the wound by sutures which in some cases included the membrane, and others only passed near it, and killing the animals at various periods after the operations, which were made as accurately comparative as possible. Nearly all the animals recovered; but in those where the more superficial sutures were used, there was a portion of the parietes left destitute of peritoneum, and this defect was supplied by adhesion of intestine or of omentum. In two cases where omentum became adherent, the motions of the dogs were materially interfered with. In those cases where the peritoneal edges of the wound had been included, the union was so perfect that it was difficult to detect the line of union two or three weeks after the operation. This was explained by the observation of a case in which a woman died within two days after ovariotomy. The hare-lip pins which had passed through the peritoneal edges were quite concealed from view and protected from contact with the intestine, partly by folding of the peritoneal edges together, and partly by effused lymph. Mr. Wells had preserved many of the most striking specimens, and would be happy to show them to any gentleman who was interested in the subject.

Dr. TYLER SMITH had recently attended a case which strongly

exemplified the good effects of bringing together the edges of the peritoneum by the sutures. After union of the external wound and the removal of the sutures, suppuration took place along the whole line of incision, extending through the entire thickness of the abdominal wall. The peritoneum had, however, healed so perfectly that no pus found its way into the peritoneal cavity. In this case, silk sutures had been employed. The patient recovered, but this would have been hardly possible unless the edges of the peritoneum had been brought together, so as to produce union by the first intention. It was unnecessary to pierce the edges of the peritoneum to effect this. It was sufficient to take up the tissue immediately above the peritoneum at the edge of the incision.

Dr. Graily Hewitt was induced to believe that the inclusion of the edges of the peritoneum in the sutures was part of the operation to which great importance was to be attached.

Mr. Spencer Wells said that when metallic sutures were used, and the deep ones were removed on the third day, he had never seen any suppuration in their track.

Dr. Tanner said he had been led by an observation of Mr. Adams, at a meeting of the Medical and Chirurgical Society, to avoid the peritoneum, but for the future he would follow the plan advocated by Mr. Wells.

Delivery of a Living Child Thirteen Months after Ovariotomy. By Geo. Ridsdale, L.R.C.P. (Communicated by Mr. Spencer Wells). The child was delivered when the pregnancy had advanced to the eighth month. The mother and child have gone on well. The age of the mother was forty-three years. The fact that well-authenticated cases of childbirth after ovariotomy are rare had induced the author to lay the case before the Society.

Annular Laceration of the Cervix Uteri. By T. Herbert Barker, M.D.Lond., F.R.C.S. The term "annular" was chosen to distinguish that form of laceration during labour by which a complete ring of uterine structure, consisting of the cervix and os uteri, is separated from the remainder of that organ, the child having passed through the laceration, and not through the os uteri. The cause of this kind of laceration is, the protracted pressure of the head against a circle of the uterine parietes in a contracted pelvis—perhaps, also, conjointly with a sharp linea ilio-pectinea. In the case related, the author was called, on the fourth morning of labour, to a primiparous patient, forty-two years old, when he found the os uteri not dilated larger than a florin, the pelvis contracted, and the bladder much distended. Soon afterwards, an ear could be felt under ths pubes, through a transverse laceration in the cervix uteri, anteriorly. An attempt was made to deliver with the forceps, but unsuccessfully, and craniotomy was performed. After the birth of the child, a circular mass was found in the vagina, consisting of the os and cervix uteri, separated from the body of the uterus at every point, with the exception of an inch and a half posteriorly. The os uteri was of the size of a florin, and its margin thin, even, complete, and well defined. The lacerated edge was jagged, rough, rather thicker than the margin of the os, but not so thick as the intervening uterine texture. The colour of the entire mass was of a purplish-red, venous tinge. There was no hæmorrhage. The separated portion sloughed away on the third day. The catheter was required for seven days afterwards. The patient recovered, and the catamenia returned. With regard to the treatment, Dr. Uvedale West, in a letter to the author, wrote that in such a case he would endeavour to dilate the os uteri by introducing first one, then a second, then a third and fourth finger, side by side, to produce sufficient dilatation to admit either the vectis or the forceps.

Specimen of the Effects of Reckless Vaccination. By Robt. Druitt, M.R.C.P. Dr. Druitt exhibited two coloured drawings showing the, happily rare, effects of vaccination, performed, he believed, in a recklessly severe manner. A surface, one inch by three quarters, had been scratched all over by ivory points, and the whole surface had sloughed, leaving an enormous cicatrix. It was a question whether the effects of vaccination suffer any diminution by the entire destruction and separation of the injured part.

Mr. Jay thought that there could be little doubt that such an occurrence as that described by Dr. Druitt would greatly interfere with the protective efficacy of the vaccination. The early authorities considered that the occurrence of erysipelas interfered with its due influence, and early sloughing of the part operated on, especially where it took place before the appearance of vesicles, must cause the vaccination to be considered wholly useless. He regarded the local and constitutional effects of vaccine inoculation as distinct, and that the former was, in a great degree, the measure of the latter effect. As the result of observation, he was disposed to think that, for the perfection of this constitutional influence, some days (probably from eight to ten) were required. This active conversion of the whole system into the requisite condition did not appear to him to take place completely in every case, for a certain number of children vaccinated would, on the eighth day, present a few, perhaps one or two, nearly invariably small and retarded vesicles; whilst other children, vaccinated at the same time, and in the same manner, would have vesicles perfectly normal, and as numerous as the punctures which had been made. In the latter cases, it was not very uncommon, especially in warm weather, for an eruption of papulæ to occur over the surface, which eruption was rarely or never seen in the cases in which few vesicles resulted. Reserving a fuller statement, perhaps, for some other opportunity, he might say, that some time ago he had grouped together a number of cases, at various ages, in which vaccination produced fewer than three vesicles, as the result of seven or eight punctures. He found that in children under three months these partial failures (if he might so call them, for they appeared related to unsuccessful cases) occurred, out of 142 cases, in the proportion of 26·7 per cent. At three months, in 211 cases, they occurred in the proportion of 18 per cent. Above three months, and under one year, in 94 children, the proportion was 8·5 per cent.; and in 54 children above one year, not one single case occurred in which all the points of insertion did not take effect. These results have led him to question whether, in much of our vaccination, there was not a deficiency of protective power, not so much from want of care or dexterity (of which, however, as causes of imperfect vaccination, he had no doubt) but on account of a not uncommon deficiency of a due susceptibility to vaccine inoculation observable in weakly and ill-nourished children of delicate mothers, and in others, which we may, perhaps, be enabled better to distinguish at a future time. In these cases, it would be well to defer vaccination for a few months, and then to use redoubled care in the operation. It appeared also especially necessary to avoid the probably imperfectly-maturated and weak lymph in these retarded cases as sources of supply, notwithstanding that the absence of areola invited its employment. He trusted this brief statement, after some years experience, might not be considered irrelevant.

[*To be continued.*]

Editor's Letter Box.

ACTION OF MERCURY ON THE LIVER.

Letter from Thomas Inman, M.D.

Sir,—Dr. Ogier Ward's letter in the last number of the Journal opens to my mind a new and very interesting phase in this inquiry. In stating it, I must refer briefly to Dr. Sir H. Cooper's note of November 12th. Both writers seem to assume that the rich brown colour of healthy fæces *is due to their admixture with bile;* and they conclude that a restoration of this colour, after it has been absent, is evidence that the *liver* is again acting. In this belief they are joined by almost every practitioner in medicine. Until I read Dr. Ward's letter critically, I entertained that idea myself. But a strict logic shows that two flaws exist in the arguments adduced. First, Sir H. Cooper gives not a tittle of evidence that what he considers to be bile in the evacuations is really such. Secondly, Dr. Ward does not attempt to demonstrate that the brown colour of the fæces is due to bile and nothing else.

With an honest desire to attain exactness, I attempted to supply the required links, and made the inquiry, Upon what does the brown tinge in the stools depend? Dr. Ward gives his own case to show that diarrhœa with clayey stools may exist for weeks without there being any evidence of real hepatic disorder: in that observation I concur. I have already noted the persistence of white stools when an individual is on a milk diet. I know one case of severe headache always accompanied with clayey stools, in which mercurials *invariably make the stools whiter;* and another, in which the motions become brown again in four days without any medicine at all: clayey stools, therefore, do not necessarily indicate hepatic disease requiring medical interference. But Dr. Ward says, that mercury, as a general rule, restores the healthy colour sooner than any other drug,—granted, for the sake of argument; but how does that affect the question if we rejoin, *the brown colour of the stools is due to a secretion from the colon?*

In cogitating over this matter, I was greatly struck with the acuteness with which Dr. Thudichum had struck what I felt was *the* weak point in my first paper. His remarks, as reported in the Journal, Oct. 27th, 1860, *à propos* of my notion, that the clayey stools might contain colourless bile, were, "This has not been proved to obtain: as, on the other hand, *it has been proved that the healthy fæces contain no biliary matter, except a derivate of cholochrome.* Dr. Inman's assumption becomes very improbable; and the reverse opinion gains ground, that the *clayey white stools* of the jaundiced contain *neither bile acids nor cholochrome.*" Taking this in its entirety, we assume that there is no direct proof that clayey stools contain *any bile.* But memory recals many cases of jaundice with total suppression of bile, when the stools *have been brown.* Whence, then, the colour? This involves a very simple question, viz., "*Where does the brown colour of the stools begin?* That I might not deceive myself on this point, I propounded the question separately, without giving any reason for it, to four different young medical men, all close observers, and diligent in their attendance in the dead-house: the answer was the same from all, viz., *in the colon.* My own memory upon this point may possibly be treacherous, I therefore make the remarks interrogatively rather than affirmatively, and ask, "did ever any one see the contents of the small intestines of a brown, deep yellow, or even a bilious hue? Did ever any one see, in cases of hernia, a brown fæcal matter flow from the bowel, if the small intestine only was implicated? Is it not a fact, that the intestinal secretion is always whitish prior to its reaching the ileo-cæcal valve, and that it attains its fæcal character and colour *in the colon? May not a clayey diarrhœa, then, simply demonstrate that the colon, and not the liver, is sluggish?* I next examined with care the intestines of a man who had died in the Royal Infirmary rather suddenly. The canal was slit up from end to end, and it was clear that "fæcification" commenced in the colon: the direct evidence was against the bile being the cause of the colour. After this, I recollected Dr. Petrie's assertion, that the green colour of the stools in children who had taken calomel was due to a vitiated secretion from the bowels, and chiefly from the colon: and on turning to a private letter from my friend, Dr. Russell of Birmingham, date, Nov. 3rd, 1860, I found the remark, "My strong suspicion—I dare hardly yet call it a belief—is, that what is called bile in fæces, is really a secretion from the intestinal follicles, and often from those of *the colon.* I was led to this suspicion by finding 'fresh bile' in fæcal matter which had evidently been lying for a considerable period in the colon, and I propounded the heresy at one of our societies, but received general discredit."

These observations demanded the farther inquiry, Is there evidence that calomel and mercurial compounds act upon the intestines generally, and upon the colon in particular? The answer in the affirmative has been given by Dr. Taylor, who writes, irrespective of the present inquiry, "The coats of the stomach are sometimes corroded; .... similar appearances have been met with in the intestines, *especially in the cæcum.* In a case by Dr. Herapath the stomach was softened, and the cæcum had been the seat of the most violent inflammation, the whole surface being of a deep black red colour, and there were patches of sloughing in the coats" (Taylor *On Poisons*, p. 395). Again (p. 397), "the duodenum and jejunum were healthy; there was slight inflammation of the mucous membrane about the the lower two-thirds of the ileum, and this was the more marked towards the termination of the intestine; near to the cæcum there were several patches of inflammation; the whole of the large intestines were highly inflamed; the liver was enlarged and congested; the gall-bladder contracted and containing scarcely any trace of bile." Dr. Scott showed that calomel purges irrespective of bile in the bowels. Coupling these remarks with those in my first communication, the deduction is logical, that there is evidence that mercury *does not increase the hepatic secretion,* but that *it does modify the condition of the intestinal mucous membrane, and especially that of the colon.*

I will not weary your readers by proceeding farther into the subject now. I have said quite enough to prove that much inquiry must be made before we are justified in forming a final decision. I cannot, however, agree with Sir H. Cooper, that controversy upon important points of practice is undesirable; nor can I agree with that style of reasoning adopted by him which starts from assumptions; *e. g.* in his note of Nov. 12th, he remarks, "I have observed experimentally that stools having the physical properties of bile have followed the administration of mercury," etc. This reasoning would be conclusive and irresistible, settling the question at issue for ever, if he were to append a demonstration, that the physical properties of bile in the stools are unmistakable. Without this demonstration the argument is worthless; for there is every reason to believe that what has been considered as bile, has nothing whatever to do with the liver.

In conclusion I must just add, that one very important point in my first communication has been overlooked by those who have written to the Journal, viz., that increased discharge of fluid bile by the anus, supposing such to be proved, is no evidence of increased secretion by the liver; *i. e.* the liver may secrete less, and yet the stools contain more, from the fluid not mixing with the chyle, and not being absorbed into the system.

I am, etc.,
Thomas Inman.

Liverpool, December 11th, 1860.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

* *In these lists, an asterisk is prefixed to the names of Members of the Association.*

BIRTHS.

Of sons, the wives of—

*Barton, John M., Esq., Lee Park, Blackheath, on Dec. 7.

Berney, Edward, Esq., Croydon, on December 9.

Douglas, G. M., M.D., Quebec, on November 3.

Hooper, William R., Esq., Assistant-Surgeon Bengal Army, at Dinapore, on October 20.

Somers, Henry, Esq., Surgeon 55th Regiment, in London, on December 6.

Of daughters, the wives of—

*Bearpark, George E., Esq., Leeds, on December 4.

*Boxall, H., Esq., Wisborough Green, Sussex, on Nov. 30.

Bristowe, J. S., M.D., St. Thomas's Street, Southwark, on December 9.

*Norton, S., M.D., Wateringbury, Kent, on December 12. (Prematurely.)

Swayne, Herbert W., Esq., Surgeon, Erith, on December 9.

MARRIAGES.

Birkett, the Rev. Thomas, of Tenby, to Jane, second daughter of *Thomas Barnes, M.D., of Carlisle, on November 29.

*Curtler, Henry, Esq., Droitwich, to Ellen, eldest daughter of W. M. Rickard, Esq., of Stoke Damerel, Devonport, on December 6.

Edwards, William, Esq., of Thetford, to Eliza W., youngest daughter of *H. W. Bailey, Esq., of the same place.

DEATHS.

Anderson, George, Esq., Surgeon, of Farnham, at Madeira, aged 58, on November 26.

Folkard. On December 7, at Kensington Park Terrace, aged 33, Julia, wife of Henry Folkard, M.D.

HEALTH OF LONDON—DECEMBER 8TH, 1860.

[*From the Registrar-General's Report.*]

		Births.	Deaths.
During week	Boys.. 623 / Girls.. 891	1814	1240
Average of corresponding weeks 1850-9		1635	1369

Among the causes of death were—bronchitis, 172; pneumonia, 95; phthisis, 150; small-pox, 5; scarlatina, 50; measles, 58; diphtheria, 18; hooping-cough, 52. The deaths from pulmonary diseases (exclusive of phthisis) were 291, being 14 below the corrected average.

Barometer:
Highest (Sat.) 29·702; lowest (Fri.) 28·974; mean 29·152.

Thermometer:
In sun—highest (Fri.) 58·0 degs.; lowest (Sun.) 49·0 degs.
In shade—highest (Th.) 54·0 degs.; lowest (Sun.) 40·5 degs.
Mean—46·0 degrees; difference from mean of 43 yrs.+4 degrees.
Range—during week, 13·5 degrees; mean daily, 6·5 degrees.

Mean humidity of air (*saturation*=100), 96.

Mean direction of wind, Var.—Rain in inches, 0·70.

TO CORRESPONDENTS.

Communications have been received from:—Dr. T. H. Barker; Dr. P. H. Williams; Dr. Lionel Beale; Mr. Augustin Prichard; Mr. Jno. Clay; Dr. A. T. H. Waters; Dr. S. Martyn; Mr. Thos. Pope; Dr. Wm. Hinds; Mr. T. L. Pridham; Dr. Hen. Ormerod; Mr. G. E. Bearpark; Dr. Inman; Mr. R. L. Baker; Mr. H. Wilkinson; Dr. E. Copeman; Mr. A. B. Steele; Dr. James Russell; Mr. N. Crisp; Dr. Francis Hawkins; and Mr. H. M. Gould.